PRESENTED
5 DEC 1938

PROCEEDINGS

OF THE

Bournemouth Natural Science Society.

VOL. XXX.

SESSION 1937-38.

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BRITISH MUSEUM
NATURAL HISTORY

CONTENTS.

	Page
Introductory Note	5
Officers and Council 1937-8	7
List of Members	9
Membership Application Form	20
Annual Meeting	21
Council's Report	23
Legacy Form	29
Summary of Accounts	30
Financial Note	32
Library Report	32
Report of Botanical Section	32
Report of Zoological Section	33
Presidential Address	42
Obituary Notice—Walter Goodacre	46
Historical List of Officers	47
Index	55

BRITISH MUSEUM
NATURAL HISTORY

Introductory Note.

THE Bournemouth Natural Science Society was founded in 1903, being the successor to an older society which was formed in 1883 and dissolved in 1897. The early meetings of the Society were held in a room hired from time to time for the purpose, but the need for some fixed quarters was soon felt. To meet this need a small room was taken at 122 Old Christchurch Road, and, as this proved inadequate, in February, 1909, better accommodation was secured at Granville Chambers and retained for four years. In March, 1913, the Society took on lease from the Education Committee a large room on the ground floor of the Municipal College. In 1919 this also had to be given up, and the Society succeeded in acquiring a house of its own, 39 Christchurch Road. The formal opening was on February 7, 1920. In 1929 a Lecture Hall was added, and the ground floor of the old building reconstructed. The work was completed and the New Hall inaugurated on October 14, 1929.

The objects of the Society are declared by the second of its rules to be "the promotion of the study of Science in all its branches, by means of Lectures, Field Meetings, the Reading and Discussion of Papers, and the formation of Sections of its members devoted to any particular branch of the Society's work, and in any way that the Council of the Society shall deem advisable.

The Sections at present working are as follows:—
Archæological and Historical, Astronomical, Botanical, Entomological, Geographical, Geological, Microscopical, Photographical and Record, Physical, and Zoological.

During the WINTER SESSION, from October to April, GENERAL and SECTIONAL MEETINGS are held, comprising Lectures and Demonstrations on subjects of scientific interest, illustrated by lantern slides, diagrams, specimens or experiments.

All meetings are open to all members of the Society.

Throughout the SUMMER SESSIONS, EXCURSIONS to places of interest in the neighbourhood are arranged and indoor or garden meetings occasionally held.

The management of the Society is vested in a Council, which is elected at the Annual General Meeting, held in October.

The Society possesses a Library available for the use of members. This is yearly becoming more extensive and valuable by the acquisition of standard text books and of books dealing with matters of local scientific interest. Books may, under certain conditions, be borrowed by members, and there is a Reading Room in which works of reference may be consulted.

The Society's collections of archæological, botanical, geological, zoological and other specimens are now arranged in the MUSEUM. Articles on the collections were contributed to Vols. V. X. and XVII. of the Proceedings by Sir Daniel Morris, Mr. W. G. Wallace and Rev. C. O. S. Hatton respectively.

Members are elected by the Council and pay an annual subscription of £1 for full membership (admitting to all meetings and excursions for the year), a subscription of £2 covers four adult members of the same family residing in the same house.

A MONTHLY NOTICE, giving full details of all meetings, etc., is posted to every member before the beginning of each month, and a volume of Proceedings is published every year.

Application Forms for Membership, and further particulars, can be obtained from the

HON. SECRETARY,

Bournemouth Natural Science Society,
39 Christchurch Road,
Bournemouth.

Bournemouth Natural Science Society.

OFFICERS AND COUNCIL FOR 1937-38.

President

PROF. J. CAMERON, M.D., D.Sc., F.R.S.E.

Vice-Presidents

G. BRUMELL, A.R.I.B.A.
HENRY BURY, M.A., F.L.S., F.G.S.
G. E. J. CRALLAN, M.A., M.B., M.R.C.S.
L. BEECHING HALL, F.L.S.
REV. F. C. R. JOURDAIN, M.A., F.Z.S., M.B.O.U.
MISS MARCIA PENROSE, B.SC.
W. G. AITCHISON ROBERTSON, M.D., D.SC.
HEYWOOD SUMNER, F.S.A.
J. R. WHITE, M.A.

Chairman of Council

H. BURY, M.A., F.L.S., F.G.S.

Deputy-Chairman of Council

REV. F. C. R. JOURDAIN, M.A., F.Z.S., M.B.O.U.

Council

THE OFFICERS AND CHAIRMEN OF SECTIONS (ex-officio)

F. BROAD, F.S.I.
E. ST. JOHN BURTON, F.G.S., F.R.S.A.
H. DE CASTRO
MISS C. H. FRYER
MISS K. A. HUNKIN, B.A.
MRS. JAMES
F. L. LOWTHER, B.A.
MISS M. PENROSE, B.SC.
W. G. A. ROBERTSON, M.D., D.SC.
H. J. WADLOW
G. G. WREN

Chairmen of Sections

Archæological and Historical · PROF. J. CAMERON, M.D., D.SC.
Astroneomical : W. GOODACRE, F.R.A.S.
Botanical : L. BEECHING HALL, F.L.S.
Entomological : B. GORTON, M.R.C.V.S.
Geographical : W. J. WOODHOUSE, A.C.P.
Geological : HENRY BURY, M.A., F.L.S., F.G.S.
Microscopical : M. McDOUGALL, M.B., B.S.
Photographical and Record : S. WHITAKER.
Physical : W. H. MARSH, B.SC
Zoological : REV. F. C. R. JOURDAIN, M.A., F.Z.S., M.B.O.U.

Hon. Treasurer

G. BRUMELL, A.R.I.B.A.

Secretaries

Hon. Secretary : W. J. WOODHOUSE, A.C.P., M.I.H.,
Assistant Secretary : MISS K. A. HUNKIN, B.A.

Hon. Librarian

S. WHITAKER.

Hon. Editor

J. R. White, M.A.

Hon. Curator

W. C. Simmons, B.Sc., A.R.C.S., F.G.S.

Hon. Auditors

F. Broad, F.S.I., J. C. Woods.

Bankers

National Provincial Bank of England, Bournemouth.

List of Members.

Revised to 12th November, 1938.

* Honorary Members. † Past Presidents.
o Original Members. L Life Members.
G Morris Gold Medallist. A Associate Members.

The year of election is given before the name of each member.

A

1932	Abbott, A. H.	Portman Cottage, 755 Christchurch Road
1932	Abbott, Mrs.	,, ,, ,, ,,
1935	Abbott, F. E., J.P., C.C.	Shortwood, Christchurch.
1931	Adams, V. J.	7 Holdenhurst Road
1927	Adkins, H.	Glenavon, 107 Alumhurst Road
1935	Ainslie, Instr-Capt. M. A., R.N., B.A., F.R.A.S.	Grenville, Talbot Drive, Wallis Down
1934	Allan, Miss M. W., R.I.	6 Chigwell Road
1923	Anderson, Mrs. M.	Ranfurly, 18 Dean Park Road
1933	Andrews, Rev. P. T., M.A.	Foxwold, 34 Belle Vue Road, Southbourne
1937	Ansell, Miss E. M.	53 St. Catherine's Road, Southbourne
1933	Anthony, Miss C. H.	75 St. Luke's Road
1937	Asquith, Miss K.	2 Warwick Court, Hawkwood Road, Boscombe

B

1937	Bacon, Capt. F.	21 Penn Hill Avenue, Parkstone
1937	Baker, C. A., M.I.E.E.	Clieveden, 36 The Avenue, Branksome Park
1937	Baker, Mrs. L. M.	,, ,, ,,
1936	Baker, Miss M. E.	3 Penrith Road, Boscombe
1936	Banham, Miss	Southernhay, Cambridge Road
1930	Banks, R. McLachlan, M.B., C.M., D.P.H.	35 Norwich Avenue
1935	Banks, Mrs.	,, ,,
1905	Barlow, E. W., B.SC., F.R.A.S., F.R.MET.S.	Greengates, Wadhurst, Sussex
1912	aBarraclough, A., M.A., F.R.G.S.	93 East Avenue
1936	Barran, Sir Rowland	Rockstead, West Overcliff Drive.
1924	Barratt, Miss P. M.	16a St. Augustine's Road
1927	Bater, G. W., B.A.	22 Dingle Road
1931	Beckett, S. J.	Pineville Hotel, West Cliff Gardens
1932	Belcher, T. E.	Trefloyne, Sandringham Road, Parkstone
1938	Belcher, Mrs.	,, ,, ,,
1920	Bennett, Risdon, M.A	Yew Tree Cottage, Broadstone
1935	Bigg, Mrs. W.	Ladies' National Club, 24 Poole Road
1937	Black, Miss O. M.	Broadlands, West Moors Road, Ferndown
1937	Bolt, Mrs. R. M.	Shenstone, Westerham Road, Westbourne
1920	Borrett, Surg.-Capt. G. G., R.N.	Church Lane, Wool, Wareham
1932	Borrow, F.	The Knoll, 281 Charminster Road

1932	Borrow, Mrs.	The Knoll, 281 Charminster Road
1929	Bourdass, Miss A.	7 Beaulieu Road
1929	Bourdass, Miss F.	,, ,,
1920	ABourne, Miss C. M.	2 Alexandra Road, West Southbourne
1930*	†Bower, Prof. F. O., D.SC. F.R.S.	2 The Crescent, Ripon
1937	Braby, Newton	Purewell Hill, Somerford Road, Christchurch
1937	Braby, Mrs. E. M.	,, ,, ,,
1938	Brearley, Miss Ethel	8 Adeline Road, Boscombe
1936	Brewitt-Taylor, E. G.	10 Forest Road, Branksome Park
1922	Brewitt-Taylor, Mrs.	,, ,,
1931	Bright, Percy M., J.P.	Nethercourt, 60 Christchurch Road
1926	Broad, F., F.S.I.	Manton Villa, 2 Oxford Road
1928	Broad, Mrs.	,, ,,
1937	Brodhurst, Miss M.	Blagdon, 14 McKinley Road
1921	Bromley, Miss	81 Lansdowne Road
1935	Brook, E.	87 Southbourne Road
1937	Brooking, Miss L. W.	Byng Mansions Hotel, Boscombe
1937	Brown, Miss B. L.	Kismet, 28 Keswick Road, Boscombe
1917	Brown, Mrs. Edward	West Ridge, 50 Chessel Avenue
1926	Brown, Lt.-Col. F. Tatton	40 Portchester Road.
1937	Brown, S. C. S., L.D.S., R.C.S., H.D.D.	Stirling Lodge, 142 Richmond Park Road
1905	*Brumell, G., A.R.I.B.A. Hon. Member 1933	Maori, 86 Richmond Park Avenue
1920	Brumell, Miss M.	,, ,, ,,
1920	Bryant, Miss M.	Sunnyhill, Hampden Lane, W. Southbourne
1936	Buchanan Miss M.	27 Cavendish Road
1929	Buckingham, H.	6 Bodorgan Road
1937	Bunce, Miss A.	25 Parkstone Avenue, Parkstone
1937	Bunce, Miss F.	,, ,, ,,
1929	Burge, J. T.	Glenhurst, Braeside Road, West Moors
1924	Burroughs, F. G.	63 Maxwell Road
1934	Burroughs, Mrs. I. F.	High Bank, Braidley Road
1937	Burrow, Mrs. D. M., B.SC., PH.D.	107 Alumhurst Road
1922	Burton, E. St. J., F.G.S., F.R.S.A.	St. Anne's, Seaward Avenue, Barton-on-Sea
1922	†Bury, Henry, M.A., F.L.S., F.G.S.	The Gate House, 17 Alumdale Road
1930	Bury, Mrs.	,, ,, ,,
1930	Bury, Miss G. E.	,, ,, ,,
1930	Bury, Miss G. J.	,, ,, ,,
1935	Butler, F. H.	Waverton, Clifton Road, Southbourne
1935	Butler, Mrs.	,, ,, ,,
1937	Butt, Miss E. A.	Eastwood, 7 St. Winifred's Road
1933	Byard, A. G.	2 Alton Chambers, Church Road, Parkstone

C

1928	LCalkin, J. B., M.A.	Wychwood School
1934	†Cameron, J., M.D., D.SC.	Balmashanner, Grove Road
1934	Cameron, Mrs. J., J.P.	,, ,,
1938	ACampbell, Mrs. E.	4 Corhampton Road, Boscombe East
1919	Cardew, R. K., B.A.	Stafford Lodge, 26 Dean Park Road
1932	Chambers, W. H.	14 Douglas Road, Southbourne
1938	Child, Dr. F.	58 Bath Hill Court
1912	AChilver, Miss K. M.	2 Shaftesbury Road,
1931	Clark, Miss K. E.	15a St. Mary's Road
1936	Clarke, Miss Bertha, M.A.	64a Parkwood Road
1927	*Clay, R. C. C., M.D., F.S.A.	The Manor House, Fovant, Wilts.
1931	Clegg, J. H.	Mount Pleasant, Bury Road, Branksome Park

1929	Colledge, T. C.	3 Watkin Road, Boscombe
1933	Collings T. G.	54 Parkwood Road, Boscombe
1928	Constantine, M. H.	Brendon, Nairn Road
1935	Cookes, Mrs. L.	Oriel Haven, Victoria Avenue, Winton
1926	Cooper, H. A.	25 Talbot Avenue
1926	LCooper, J. S.	The Little Red House, Colehill, Wimborne
1903†o	Crallan, G. E. J., M.A., M.B., M.R.C.S.	Country House Hotel, Crowborough, Sussex
1922	Crallan, Mrs.	,, ,,
1920	Cressey, Miss H.	34a Florence Road, Boscombe
1931	Crocker, Mrs. Walter	Highridge, Ferndown
1935	Cross, Miss F. C.	59 Strouden Avenue
1934	Croucher, Miss J. M.	Little Stanpit, Christchurch
1937	Cuningham, Miss D.	Lissara, Barrs Avenue, New Milton
1931	Curgenven, Miss A. J.	6 Suffolk Road
1922	Curme, Miss M. E.	65 Lansdowne Road
1928	Curtis, E. A., L.D.S.	Holm Dene, Poole Road
1928	Curtis, Mrs.	,, ,,
1928	Curtis, E. J. B., L.D.S.	,, ,,
1903*o	Curtis, W. Parkinson, F.E.S. Hon. Member 1922	17 Christchurch Road

D

1927	Dacombe, J. M. J.	Gosfield Cottage, Winkton, Christchurch
1933	Daimpré, Rev. I. D. D.	St. Mary's Vicarage, Morden, Wareham
1935	Daimpré, Mrs. G. H.	,, ,, ,,
1932	Davy, Miss M.	The White Cottage, Newstead Road, Southbourne
1937	Dawes, Mrs. F. E.	24 Parkwood Road, Boscombe
1937	Dawson, W. G.	Redlands, 83 Southbourne Overcliff Drive
1930	de Castro, H.	Yarlington, Springdale Avenue, Broadstone
1933	de Castro, Mrs.	,, ,, ,,
1926	de Paiva, Miss E.	Sunny Halt, Hamilton Road, Boscombe
1936	Denton, Miss E.	3 Penrith Road, Boscombe
1935	Derry, Mrs. E. H.	Charnwood, Belle Vue Road, Southbourne
1910	Dodshon, E., LL.B	124 Old Christchurch Road
1936	Downes, Mrs. W.	46 William Road, Queen's Park
1928	Drew, Lt.-Col. C. D., D.S.O., F.S.A.	c/o Dorset County Museum, Dorchester
1923	Druitt, Mrs.	Willow Lodge, Mudeford, Christchurch
1925	Druitt, Miss C. M.	99 Lowther Road
1925	Druitt, Miss C. S.	,, ,,
1928	Dundee, Col. W. J., C.I.E., R.E., F.R.G.S.	38 Portchester Road
1926	Dundee Mrs.	,, ,,
1921	Dunn-Gardner, R. C.	3 Stanhope Gardens, London, S.W.7.

E

1936	Edwards, Charles, M.D.	Lyndon Lodge, 51b Christchurch Road
1936	Edwards, Mrs. H.	,, ,,
1935	Elgar, Rev. A. J., F.Z.S.	Forest House, 1 Grove Road
1935	Elgar, Mrs. E. M. K., F.R.G.S.	,, ,,
1935	Elgar, Hugh	,, ,,
1935	Elgar, Ronald	,, ,,
1922	Ellis, Mrs.	10 Forest Road, Branksome Park
1922	Ellis, Miss W. M.	,, ,, ,,
1937	Evans, John, M.R.C.S., L.R.C.P.	South View, Vectis Road, Barton-on-Sea

1936	Evans, Mrs. S. F	Bloomfield, 19 Burton Road, Branksome Park
1927	Exon, C., M.A.	12 Douglas Road, Southbourne

F

1919	Farmar, Mrs. K. A.	Whitton Lodge, Stevenson Crescent, Park stone
1922	Farmar, Miss E. A.	,, ,, ,, ,,
1937	Farmer, Miss A.	E 22 San Remo Towers, Boscombe
1937	Fearenside, Mrs. E. E.	Shiplake Hotel, 11 Poole Road
1927	Finlinson, F. J.	Daneshill, 85 Queen's Park Avenue
1934	Finnis, Miss F. M.	Riversdale, Poole Road, Wimborne
1903oA	Firbank, Miss, LL.A., A.C.P.	5 Buchanan Avenue
1937	Forrest, Miss C. D.	Hiproof, Benellen Road
1925	Fountain, E. D., L.R.C.P., M.R.C.S.	Vron, 30 Mansfield Road, Parkstone
1933	Fountain, Mrs.	,, ,, ,,
1922	Fowler, A. R. W., B.A.	Ardmore Lodge, Ardmore Road, Parkstone
1919	Fowler, Miss M. L.	Lerryn, Chessel Avenue, Boscombe
1933	†Freeman, J. P. Williams, M.D.	Curdridge, Botley, Southampton
1923	Fryer, Miss C. H.	Moulton, 46 Wellington Road
1928	Fulcher, L. W., B.SC.	60 Herberton Road

G

1937	Gallaher, Miss M. L.	60 Surrey Road
1934	Gandy, H. G., C.B.E., D.L., M.A.	Dormy Hotel, Ferndown
1926	Gardiner, H. L.	Granville Court Hotel, East Cliff
1938	Gauden, Miss E.	Royal Victoria Hospital, Shelley Road, Boscombe.
1934	Geake, W. E.	6 Hathaway Road, Southbourne
1934	Geake, Mrs.	,, ,,
1934	Gibbons, Mrs. H. M.	High Mead, Moreton, Dorchester
1927	Gorton, B., M.R.C.V.S.,	22 Arnewood Road, Southbourne
1921	Gosse, W., M.D., D.P.H.	Langley, Rowlands, Wimborne
1938	Gray, R. W., M.B.	Glendoe, Madeira Road
1938	Gray, Mrs.	,, ,,
1936	Green, J. F. N., B.A., V.P.G.S.	Berkeley Hall Hotel
1937	Green, Mrs. R.	,, ,,
1936	AGrice, Miss W.	Wentworth, Boscombe
1936	Grieveson, Miss S.	24 Surrey Road
1917	Grindley, Miss E. J.	67 Princess Road

H

1931	Haines, Mrs. E. M.	Appleslade, Ringwood
1929	LHaines, G. E.	602 Christchurch Road
1930	Haines, H. H., C.I.E., F.L.S.	Glyn Cogan, Berriew, Mont.
1931	Haines, Miss E. S.	,, ,,
1924	Hall, L. Beeching, F.L.S.	Bryn Aird, Blake Hill Crescent, Parkstone
1937	Hall, Mrs.	,, ,, ,,
1933	Harding, H. F.	Heather Glen, Western Road, Branksome Park
1934	Harding, Mrs.	,, ,, ,,
1934	Harding, G. F.	,, ,, ,,

1934	Harding, Miss G. J.	Heather Glen, Western Road, Branksome Park
1937	Harding, R.	3 Portchester Road
1913	Harris, Miss K.	Trescott Grange, Harvey Road, Boscombe
1912	Harrison, Henry	Eden Lodge, 7 Surrey Road South
1933	Harrison, H. W.	Green Pasture, Pennington, Lymington
1933	Harrison, Mrs.	,, ,, ,,
1938	Hastings, Mrs.	17 Grand Avenue, West Southbourne
1938	Hastings, Miss K.	,, ,, ,,
1932	Hatcher, F.	Hillcot, Constitution Hill, Parkstone
1932	*Hatton, Mrs.	Dutch House, Cliff Road, Barton-on-Sea
1920	Hawes, Miss	The Moorings, 27 Nelson Road
1917	Haydon, C. J.	Ben Veula, 29 West Cliff Road
1909	Hayes-Barratt, J.	16a St. Augustine's Road
1924	Hayes-Barratt, Mrs.	,, ,, ,,
1918	Haythorne, E. C. C.	Forest Lodge, Branksome Park
1934	Hellier, M., O.B.E.	Moorside, 20 Madeira Road
1921	Hellyar, Miss E. F.	Cerne Abbas, 1 Belvedere Road
1932	Hemmy, A. S., B.A., M.SC.	Anarkali, 45 Elgin Road
1917	Henderson, Miss A. J.	Springbank, 22 Fox Road, Greenock
1928	Henderson, Major H. E.	Tall Trees, 21 Wayside Road, Southbourne
1928	Henderson, R. G., M.A., M.B., CH.B. (Aber.), F.R.C.S. (Edin.)	87a Southbourne Road
1932	Henderson, Mrs.	,, ,,
1931	Herklots, Mrs.	Highland House, Highland Road, Barton-on-Sea
1923	Hill, C. S.	Northfield, Chigwell Road
1930	Hilton-Johnson, Miss C.	12 Oban Road
1924	Hoare, Miss E.	Sea Gate, Cassel Avenue
1929	Hooper, Miss M. N.	Southland, Corfe Castle
1928	Horne, Rev. E. H., M.A.	64 Alum Chine Road
1937	Hough, H. L.	38 Shaftesbury Road, Poole
1923	Howell, Mrs. Rees	Cintra, 35a Richmond Wood Road
1936	Hunkin, Miss K. A., B.A.	25 Foxholes Road, Southbourne
1927	Hunt, Mrs. F.	33 Stirling Road
1932	Hunt, Mrs. P.	Cone Cottage, 33 Twynham Road, Southbourne
1937	Hurdle, Mrs. E.	Hadley, 33 Grand Avenue, West Southbourne.
1930	Hurt, Miss C. E. C. J.	Flat 31, Ingleby, 6 Wimborne Road

I

1926	Innes, A. A.	60 Bath Hill Court
1925	Insch, J. M.	18 Beechwood Avenue
1925	Insch, Mrs.	,, ,,
1930	Insch, Miss E.	,, ,,
1934	Isaacs, G.	Melbury, Lindsay Road

J

1921	Jackson, Mrs. Gidlow	64 Portchester Road
1933	James, Mrs. M. G.	70 St. Alban's Avenue
1930	Jefferys, J. H.	Elpis, 43 Caledon Road, Parkstone
1923	Jenkins, Miss B. M.	7 Talbot Avenue
1936	Jervois, Mrs. E.	29 Chessel Avenue, Boscombe
1933	Johnson, Miss A. C.	Rivelin, 25 Avenue Road, Christchurch
1930	Jones, Miss A. Parnell	Menstone, Frankland Crescent, Parkstone
1933	Jones, Dr. Felix	7 Surrey Road
1930	Jones, Mrs. W.	1 Park Road

1927	†Jourdain, Rev. F. C. R., M.A., F.Z.S., M.B.O.U.	4 Belle Vue Road, Southbourne
1938	Joyce, W. S.	The Corner, Lingwood Avenue, Mudeford, Christchurch.
1930	Jubb, Miss O.	12 Oban Road

K

1910	Kay, A. J.	5 Lonsdale Road
1937	Keay, D. D.	4 Berkeley Road, Winton
1930	†*Keeble, Sir F. W., K.B.E., D.SC., F.R.S.	Hammels, Boars Hill, Oxford
1929	Kendall, Mrs.	20 Serpentine Road, Poole
1928	Kendall, Miss G. J., A.R.C.M.	,, ,, ,,
1935	Kerslake, F. C.	Pleasant View, Penywern, Neath, Glam.
1935	Keutgen, E.	Hotel Royale, Gervis Road East
1937	Kidd, D. J.	33 Bath Hill Court
1927	Kilburn, Miss Alice M.	9 Glenmoor Road, Winton
1927	Kilburn, Miss Annie	,, ,,
1936	King, Mrs. A.	37 Linwood Road
1937	Kirkmann, Miss Maud	26a New Park Road
1937	Kohn, Mrs. Franklin	2 Hengist Road, Boscombe

L

1934	Lawrence, R. L. R.	The Woodlands, Canford, Wimborne
1923	Lawrence, Mrs.	66 Portchester Road
1932	Laxon, E. A.	The Ramblers, Ashley, New Milton
1932	Laxon, Mrs.	,, ,, ,,
1933	Leach, W. J.	43 Browning Avenue, Boscombe
1929	aLee, Miss L., LL.A., F.R.G.S., F.A.G.S.	69 Walpole Road
1930	Lefroy, Mrs.	Kenwood, Sheffield 7.
1932	Leon, Miss N.	Heelde, Stapehill, Wimborne
1922	Littleboy, Miss E. S.	2 Bodorgan Manor, 30 Bodorgan Road
1923	Littlewood, Engineer Capt. A. W., R.N., Retd., O.B.E., Chevalier Legion of Honour.	23 Princess Road
1928	Longbottom, Mrs.	Haslemere, Penrith Road, Boscombe
1931	Looker, Rev. William, F.G.S.	50 Queen's Park West Drive
1920	aLove, W. J. E.	17 Castlemain Avenue, West Southbourne
1932	Lowther, F. L., B.A.	Lonsdale, Mayfield Avenue, Parkstone
1934	aLowther, Miss D. M., B.SC.	,, ,, ,,
1903	o*Lupton, Miss	The Cottage, St. John's Road, Sandown, I.W.
1910	Lyon, Mrs. C.	Shalimar, Wilderton Road, Branksome Park

M

1908	Mackay, Miss	8 King's Park Road
1929	Mackay, Miss C. J.	,, ,,
1933	Maclean, Miss C.	16a Walpole Road, Boscombe
1933	Maclean, Miss L.	,, ,, ,,
1937	McArthur, Mrs. H. A.	Ravenscroft, Queen's Park Avenue
1909	McBean, Miss S.	29 Parkwood Road

1932	McDougall, M., M.B., B.S.	8 Dunkeld Road
1932	McDougall, Mrs.	,, ,,
1935	McMichael, E.	1 Branksome Wood Mansions, Branksome Wood Road
1935	McMichael, Miss E.	,, ,, ,,
1920	Male, H. C., M.D., M.R.C.S.	35 Irving Road, West Southbourne
1938	Mallam, George	2a Sandringham Road, Parkstone
1938	Mallam, Mrs.	,, ,, ,,
1930†*	Malmesbury, The Rt. Hon. the Earl of, D.L., J.P.	Heron Court, Christchurch
1931	Marsh, W. H., B.SC.	Archways, 11 Mount Pleasant Lane, Ringwood
1936	Marsh, Miss M. F., B.SC.	,, ,, ,,
1913	Martin, Miss F. G.	8 Castlemain Avenue
1935	Martin, W. P., M.A.	9 Verona Avenue, Southbourne
1938	Masterman, Capt. J. S.	Flat 307, Hotel Burlington, Boscombe
1938	Masterman, Mrs. P.	,, ,,
1921	Mate, Mrs. S. J.	10 Landseer Road
1930	Medwin, Miss G. L., M.B.E.	Alfreda, Broad Avenue, Castle Lane
1937	Mersen, Miss A. M.	5 Hengist Road, Boscombe
1929	Meyrick, Sir George, BART.	Hinton Admiral, Christchurch
1931	Miles, Miss V.	21 King's Park Road
1930	Miller, Dr. A. H.	Branksea Tower, Osborne Road, Parkstone
1926	Miller, Miss W. F., B.A.	Sunnycroft, 15 Penrith Road, Boscombe
1935	Miller, G. Victor, M.D.	Heathlands Hotel, Grove Road
1937	Milne, R. M.	Radegund, Pennington, Lymington
1934	Mitchell, Miss E. A.	109 Edgehill Road
1937	Moore, E. J. F., M.D.	8 Grovely Road
1937	Moore, Mrs. L.	,, ,,
1922	Moore, Major T. C., I.M.S.	Sundew, The Bench, Lyndhurst
1937	Morley, B. D. W.	Holy Trinity Vicarage, Madeira Road
1931	Morrell, C. Conyers, M.D., (Brux), L.R.C.S., L.R.C.P. (Edin.), D.P.H., F.R.I.P.H., F.R.A.S.	Mudeford House, Christchurch
1931	Morrell, Mrs. I. C., M.R.I.P.H.	,, ,,
1937	Morris, Brig-Gen. G. M., C.B., D.S.O.	Dormy Hotel, Ferndown
1935	Morrison-Bell, Sir C. W. H., BART.	Balcombe Tower, Branksome Park
1935	Morrison-Bell, Lady	,, ,,
1935	Morrison-Bell, Miss D. F.	,, ,,
1935	Morrison-Bell, Miss V. F.	,, ,,
1908	Moss, Miss	The Grange, 52 Westby Road
1929	Mott, Lady	4 Dingle Road, Boscombe
1933	Mott, Miss Agnes	,, ,,
1933	Mott, Miss J. H.	,, ,,
1932	Mullins, Miss D. E. A.	Rosemaryne, 111 Edgehill Road
1938	Mumford, Mrs. Evelyn B.	Crossways, 7 Burtley Road, Southbourne
1937	Mundy, Montague	Culham, Glenferness Avenue
1936	Murdoch, Miss J. C.	3 Rotherfield Road
1935	Muspratt, C. K., B.A., F.R.G.S.	25 East Avenue
1935	Muspratt, Mrs.	,, ,,

N

1936	Nankivell, Mrs. M. R.	St. Columb Porth, Sandbanks
1931	Nichols, Mrs.	46 Truscott Avenue
1938	Nix, Miss M. M.	66 Strouden Avenue

O

1929	Ogden, Miss E.	Southland, Corfe Castle

1910	LOke, A. W., B.A., LL.M., F.G.S., F.S.A.	32 Denmark Villas, Hove, Brighton
1922	Ousby-Trew, Miss	Overthorpe, Michelgrove Road, Boscombe
1929	Owen, H., B.A., M.B., M.R.C.S.	59 Manor Road
1929	Owen, Mrs.	,, ,,
1929	Owen, J. D.	Barnweill, 42 Strouden Avenue
1929	Owen, Miss E. D.	,, ,,
1929	Owen, Miss M. D.	,, ,,
1937	Owen, Lady L. F.	King's Knoll, Clifton Road, Parkstone.

P

1904	Painter, Mrs.	29 Talbot Road
1928	Parry, Miss A. K.	Tilneyhirne, St. John's Road, Boscombe
1934	Parsons, A. J., M.R.S.T.	Parva, 32 Morrison Avenue, Westbourne
1936	Parsons, Mrs. A. C.	,, ,, ,,
1938	Parsons, Miss S.	Bingley Moors, Queens Park
1926	Paterson, Miss N.	Corte Lodge, Parkstone
1924	Pattinson, Dr. T. W.	59 Wellington Road
1924	Pattinson, Mrs.	,, ,,
1938	APenn, Miss H. M.	34 Gloucester Road, Boscombe
1916	Penrose, Mrs.	Woodbury, 9 Grove Road
1916	Penrose, Miss F.	,, ,,
1916	Penrose, Miss M., B.SC.	,, ,,
1929	Phelps, Mrs. J. V.	Woodbury, East Avenue
1934	Pickup, E. A.	24 East Avenue
1935	Pinder, T.	Dunster, Howard Road
1933	Platten, G.	Rotherfield Kennels, New Milton
1933	Platten, Mrs. A.	Rotherfield Grays, New Milton
1921	Pontifex, R. D., M.A.	Dalton House, 68 Christchurch Road
1926	Potter, Rev. Prof. M. C., M.A., D.SC., F.L.S.	Corley Croft, York Avenue, New Milton
1930	Potter, Miss R. M.	144 Makepeace Mansions, Holly Lodge, Highgate, London, N.6.
1930†	*Prain, Lt.-Col. Sir David, C.M.G., C.I.E., F.R.S.	The Well Farm, Warlingham, Surrey
1938	Price, Leopold	Oakwood, 18 Colville Road, Boscombe
1938	Price, Mrs. B. E.	,, ,, ,,

Q

1922	Quick, R., F.S.A. (Scot.), M.J.S.	Tregenna, Castle Lane
1924	Quick, Mrs.	,, ,,

R

1927	Raine, A. D.	Milverton, Lymington
1927	Raine, Mrs.	,, ,,
1912	*Rankin, W. Munn, M.SC., (Leeds) B.SC. (Lond.) Hon. Member 1920	Municipal College, Burnley, Lancs.
1917	Ranshaw, Miss E. M.	9 Marlborough Road
1918	Ratcliffe, Mrs.	Brooklands, 32 Branksome Wood Road
1936	Ray, W. T.	24 Alyth Road
1919	Rayner, Miss F.	35 East Avenue
1905	*Rayner, J. F., M.B. MYC. S.	Arlesey, Westerham, Kent
1934	Redmayne, W. T.	Lynford House, Burley, Ringwood
1935	Reid, A. H. G.	29 Newstead Road, Southbourne
1932	Reid, Mrs. F. E. A.	,, ,,

1924	*Reid, Mrs. E. M., B.SC., F.L.S.	Pinewood, Milford-on-Sea
1938	Reid, J. W.	Westminster Hall, Beacon Road
1919	ARichards, Miss E. E., B.SC.	3 Clive, 20 Grove Road.
1928	Richards, Mrs. E. M.	Flat 51, Hampshire Court
1931	Richardson, Miss I. M.	87 Cranleigh Road
1936	Ringrose, B. J.	Farley, Harbridge, Ringwood
1936	Ringrose, Mrs.	,, ,,
1926	Rix, Miss M. E. de B.	Wayside, Stourcliffe Avenue
1916	Roberts, H. Astley, B.A.	Shalvah, Wilfred Road, Boscombe
1918	Roberts, Mrs.	,, ,, ,,
1938	Roberts, E.	33 Brackendale Road
1924	Robertson, W. G. A., M.D., D.SC., F.R.C.P., F.R.S. (Edin.), F.S.A. (Scot.)	St. Margaret's, St. Valerie Road
1934	Robertson, Mrs. M. K. A., M.D., L.R.C.P., F.R.S.G.S.	,, ,,
1929	Robinson, Miss M. H.	Byways, Chaddesley Glen, Canford Cliffs
1929	Robinson, Miss W. A.	,, ,, ,,
1923	Roden, Miss E. M.	12 Walpole Road, Boscombe
1938	Roden, Miss J. E.	,, ,, ,,
1936	Rooth, Mrs. A. V.	Holt Mount, Wimborne
1933	Ross, Mrs. H. G.	Dingwall, Priory View Road, Moordown
1916	Rothwell, Mrs.	c.9 Pine Grange, Bath Road
1935	Rowling, Rev. Canon F.	87 Watcombe Road, Southbourne
1935	Rush, Major J. S.	Somerset House, Bath Road
1935	Rush, Miss C. J.	60 Victoria Park Road

S

1929	Saunders, Mrs. M. S.	Southernhay, Cambridge Road
1931	Scudamore, C. E., B.A., L.R.C.P.	24 Hampshire Court
1914	Sharp, C.	Langdon, Parkstone
1919	Sharp, Miss E.	,, ,,
1935	Shaw-Wilson, Mrs. G.	Salterns Cottage, Lilliput, Dorset
1933	Sheffield, Miss I. E.	177 Richmond Park Road
1937	Sherwood, Miss H.	264 Charminster Road
1938	Shirreff, Miss M.	Woodley, Lymington
1932	Silvester, N. L., M.SC., F.A.MET.S.	East Cliff Hall
1937	Simmons, W. C., B.SC., A.R.C.S. F.G.S.	Trigonia, Spur Hill Avenue, Parkstone
1937	Simmons, Mrs. I. M.	,, ,,
1920	Simpson, N. Douglas, M.A., F.L.S., F.R.M.S.	Maesbury, 3 Cavendish Road
1933	Slack, R. W.	40 Strouden Avenue
1914	Smyth, W. Johnson, M.D.	Killalief, 534 Holdenhurst Road
1922	Smyth, Miss M.	,, ,,
1915	Smythe, Mrs.	Willstead, 22 Cavendish Road
1920	Smythe, Miss D.	,, ,,
1916	Smythe, Miss K. M.	,, ,,
1938	Spearman, Dr. B., O.B.E., M.A., M.B., B.C.L.	34 Solent Road, Southbourne
1932	Spence, W. G.	The Shieling, Highlands Road, Barton-on-Sea
1932	Spence, Miss J. G.	,, ,, ,,
1909	Spencer, J. F.	Glenthorne, 73 Richmond Park Road
1935	Spring, F. G., N.D.A., U.D.A.	Aboyne, Spur Hill Avenue, Parkstone
1923	Stables, A. D.	Saxthorpe, St. Osmund's Road, Parkstone
1923	Stables, Mrs.	,, ,, ,,
1923	Starr, Col. W. H., C.B., C.M.G., C.B.E.	4 Foxholes Road Southbourne
1936	Stevens, A. G.	Barford Lodge, 40 Seaward Avenue

1916	Stiff, S. J., B.SC.	Norden House, Corfe Castle
1916	Stiff, Mrs.	,, ,,
1916	Stiff, Miss M. J.	,, ,,
1933	Stockdale, Miss K. H.	72 St. Alban's Avenue
1924	Story, F. N.	Storyland, Church Road, Southbourne
1938	Sugden, Miss A.	Suffolk Court, Suffolk Road
1918G†*	Sumner, Heywood, F.S.A.	Cuckoo Hill, South Gorley, Fordingbridge
1922 A	Symes, H., M.A.	52 Lowther Road

T

1911	Tatchell, Leonard F.E.S.	Swanage
1928	Taylor, Mrs. R. A.	Flat 32, Hampshire Court
1937	Terrell, G. H.	53 Wentworth Avenue, Boscombe
1925 A	Thomasson, Miss M. E.	37 Belvedere Road
1936	Thompson, Miss E.	Holmwood, 30 Bournemouth Road, Parkstone
1928	Thompson, Rev. J. C., F.G.S.	Cragside, Manor Road, New Milton
1929	Thomson, A. G. A., M.A., M.B.	38 Wentworth Avenue, Boscombe
1932	Thomson, Mrs.	,, ,, ,,
1936	Trayfoot, Mrs. L. W.	25 Eaton Road Branksome Park
1933	Tucker, C. E.	11 Warren Edge Road, Southbourne
1929	Tucker, Mrs. E. M.	39 Hamilton Road
1914	Twemlow, Miss E. E.	Devon Lodge, 83 Alumhurst Road

V

1918	Vorse, John	Leighurst, Walkford, Christchurch

W

1924	Wadlow, H. J.	The Gables, Queen's Grove, Parkstone
1921	Wales, Miss	The Nook, 4 Ormonde Road, Branksome Park
1921	Wales, Miss N.	,, ,, ,,
1913	Wallace, W. G.	61 East Avenue
1937	Walters, Miss E.	Uplands, Rowlands Hill, Wimborne
1936	Waltham, T. Ernest, F.R.H.S.	33 Hamilton Road, Bournemouth East
1920 L	Wanstall, W. S.	Del Monte, 6 Roslin Road
1920 L	Wanstall, Mrs.	,, ,,
1936	Ward, J. A., M.D.	1 Howard Road
1933	Ward, L.	36 Bridge Street, Christchurch
1936	Warlow, Frank, L.D.S.	99 Southbourne Road, Southbourne
1936	Watkin, Ralph	Avila, Spur Hill Avenue, Parkstone
1930	Webb, Mrs. F. J.	Melbury, 18 Soberton Road
1936	Weekes, Mrs. M.	3 Rotherfield Road
1928	Welfitt-Nicholls, Miss C.	Courtlands Hotel, Boscombe Spa Road
1938	Welfitt-Nicholls, Miss Edith	,, ,,
1913	Wetherell, Miss M.	Triana, 31 Harvey Road, Boscombe
1920	Wetherell, Miss S.	,, ,, ,,
1918	Whitaker, S.	22 Somerset Road, Boscombe
1924	Whitaker, Miss E. M.	,, ,, ,,

1924	Whitaker, S. E., P.A.S.I.	22 Selwood Road, Addiscombe, Croydon
1920	White, J. R., M.A.	Whitecot, 15 Linwood Road
1931	AWhite, S. J.	7 Gilbert Road
1929	Whiteley, F. W.	The Fells, West Lulworth, Dorset
1937	Willans, Miss C. M.	E 22 San Remo Towers, Boscombe
1929	Windsor, Mrs. E.	Cragside, Manor Road, New Milton
1935	AWood, Miss E. B., B.SC.	4 New Park Road, West Southbourne
1920	Woodhouse, Rev. A. P.	Deanhurst, 5 Littledown Road
1903	oWoodhouse, W. J., A.C.P., M.I.H.	29 Twynham Road, Southbourne
1918	Woodhouse, Mrs.	,, ,, ,,
1923	Woodhouse, W. R.	,, ,, ,,
1923	Woodhouse, Miss M. M.	,, ,, ,,
1931	Woods, J. C.	Pine Croft, Rothesay Road
1931	Woods, Mrs.	,, ,,
1930	†*Woodward, Sir A. Smith, F.R.S., F.L.S., F.G.S.	Hill Place, Haywards Heath, Sussex
1932	Wren, G. G.	264 Charminster Road

Y

1935	Young, Rev. A. W.	542 Holdenhurst Road
1929	Young, Miss E.	11 Borthwick Road, Boscombe

To the Honorary Secretary,

Bournemouth Natural Science Society,

39, CHRISTCHURCH ROAD, BOURNEMOUTH.

Dear Sir,

I beg to propose that

M.....

(Please give Christian name in full, and state title—Mr., Mrs., Miss, etc., and any degrees or qualifications.)

Address.....

.....

**who is personally known to me* / **who has produced satisfactory credentials to me* *be elected an* **Ordinary* / **Associate* *Member of the Society.*

Date..... *Member's Signature*.....

I beg to second the above proposal

Date..... *Member's Signature*.....

*Delete words not applicable.

Annual Meeting, 1938.

The thirty-fifth Annual Meeting of the Bournemouth Natural Science Society was held on Saturday, October 29th, 1938, at 3 p.m.. Mr. Henry Bury, Chairman of Council, was in the Chair.

The Minutes of the thirty-fourth Annual Meeting were read by the Hon. Secretary, and signed by the Chairman after approval by the meeting. The Council's Report for the year ending September 30th, 1938, was adopted, on the proposal of Mr. McMichael, seconded by Dr. Scudamore:—

The Hon. Treasurer's Statement of Accounts was next considered. After the Chairman had answered various questions, he drew the attention of the meeting to the fact that, owing to the sudden illness and death of the Hon. Treasurer, Mr. H. G. Trayfoot, it had not been possible, as yet, to audit the accounts. The following resolution was therefore passed on the motion of Mr. McMichael, seconded by Dr. Scudamore.

"That the Summary of Accounts as presented be accepted, and that the new Hon. Treasurer be requested to arrange for the auditing of the accounts by the auditors appointed last year. That, if the accounts are found to be correct, the Council be authorized to have them printed with the auditors' certificate in the forthcoming volume of Proceedings. That if any substantial error in them is discovered, a special General Meeting be called to consider the revised accounts."

Mr. J. R. White moved the Vote of Thanks to the retiring President, Professor John Cameron, M.D., D.Sc.; this was seconded by Dr. W. G. A. Robertson, and passed with acclamation.

The Chairman next announced the name of the new President, Professor G. D. Hale Carpenter, M.B.E., D.M., F.L.S., F.Z.S., F.R.E.S., the statement being received with applause.

The election of officers followed. The officers for the previous year were re-elected, with the exception of the Hon. Treasurer. This office, having been rendered vacant by the death of Mr. Trayfoot, was filled by the appointment of Mr. A. J. Parsons. Dr. Pattinson moved the election, which was seconded by Mr. E. St. J. Burton.

Mr. Hayes-Barratt proposed the election of Chairmen of Sections, Mr. F. L. Lowther to be Chairman of the Archæological Section in the place of Professor John Cameron, who had been obliged to resign owing to ill-health; Instr.-Capt. M. A. Ainslie of the Astronomical Section, succeeding the late

Mr. Goodacre; all other Chairmen as before. This motion was seconded by Miss Parnell Jones, and carried unanimously. Professor John Cameron was elected a Vice-President of the Society on the proposal of Mr. Brumell, seconded by Miss Penrose. Mr. Brumell, in moving the election, mentioned that Professor Cameron had qualified for the position both by his services to Science and to the Society. The Hon. Auditors were re-elected on the proposal of Mr. W. C. Simmons, seconded by Miss Twemlow.

Several items of business were next discussed including the question of evening meetings.

The Assistant Secretary moved that a resolution of sympathy with Mrs. Trayfoot on the death of her husband should be passed by the meeting, and this was unanimously agreed to, having been seconded by Mr. McMichael. The following five members were elected to the Council by a ballot vote:—Mr. G. Brumell, Mr. E. St. J. Burton, Miss C. H. Fryer, Dr. W. G. A. Robertson, and Mr. H. J. Wadlow.

The meeting concluded with a Vote of Thanks to the Chairman, proposed by Mr. G. G. Wren, supported by Mr. S. Whitaker.

Council's Report, 1938

THE membership of the Society has decreased by ten during the past year. There are now 484 members, of whom 16 are Associates, 6 are Life Members, 14 are Honorary Members, 5 are Original Members, and 11 are Past Presidents. Forty-three new members have joined since September, 1937; there have been 42 resignations, and the Council has regretfully to announce the death of 11 members.

The death of Mr. W. Goodacre, F.R.A.S., in June of this year, has been a very great loss to the Society. Mr. Goodacre had been a member since 1929, and for some years an able Chairman of the Astronomical Section. The Society has also lost a keen geologist in Mr. A. Gibbons, whose death took place in April. Other members whose deaths the Council has to record are Mr. Herklots, Mr. F. W. Ibbett, Mrs. C. M. Jackson, Mr. S. Lindsay Kearne, Mr. E. A. Notcutt, Mr. H. K. Slicker, Mrs. Speakman, Mr. Shaw-Wilson, Major G. H. Tuke, and the Rev. W. L. O. Ward.

There were two Presidential Addresses, owing to the fact that the President of 1936-37, Sir Harold Carpenter, was prevented by ill-health from giving his Address until October. Professor John Cameron, President this year, gave his Address on November 6th, when he read before a large audience a Paper on "An Archæological Visit to Jerusalem and Bethlehem." The Children's Party was given on January 8th, and proved a most popular event.

On July 9th the President and Mrs. Cameron were At Home to members of the Society at No. 39 Christchurch Road. Although the weather was unfavourable, and tea had to be taken indoors, the guests spent a most enjoyable afternoon, and were entertained by an admirable exhibition of folk-dancing.

During the year there have been 19 general meetings, apart from the Annual General Meeting, and two general excursions. Sectional meetings have numbered 66 and sectional excursions 41, according to the following list:—

General.

Lectures and Meetings.

(*Illustrated by Lantern Slides.)

1937.
Oct. 30.—Annual Meeting.
*Nov. 6.—Presidential Address.
Nov. 15.—Club Day.
*Nov. 27.—Men and Apes. H. Bury.
*Dec. 14.—Rambling in Uganda. W. C. Simmons.
Dec. 20.—Club Day.

1938.
*Jan. 5.—The Temple and its Lawyers. W. M. Freeman.
Jan. 8.—Children's At Home.
Jan. 31.—Club Day.
Feb. 21.—Club Day.
*Mar. 19.—Extinct Animals. W. G. A. Robertson.
Mar. 28.—Club Day.
Apr. 25.—Club Day.
May 16.—Club Day.
June 13.—Club Day.
July 9.—Garden Party.—The President and Mrs. Cameron At Home.
July 25.—Club Day.
Aug. 8.—Club Day.
Sept. 23.—Club Day.
Oct. 6.—Club Day.

Excursions and their Leaders.

June 1.—Wells and Cheddar Gorge. S. Whitaker.
July 13.—Broadlands and Romsey Abbey. S. Whitaker.

Sections.

Archæological and Historical Section.

Lectures and Meetings.

1937.
*Dec. 4.—The Ancient Egyptians. C. E. Scudamore.

1938.
*Feb. 12.—Some Bridges of Historic Interest. R. M. Milne.
*Mar. 12.—The Roman House at Colliton Park. Lt.-Col. C. D. Drew.
*Apr. 9.—Maiden Castle. Lt.-Col. C. D. Drew.
*Oct. 15.—Amulets and Charms. W. G. A. Robertson.

Excursions and their Leaders.

May 23.—Salisbury—Cathedral and Museum. J. Cameron and S. Whitaker.
June 22.—Dorchester—Museum and Colliton Park. J. Cameron.
July 20.—Cranborne Manor. J. Cameron.
Aug. 16.—Kingston Lacy. J. Cameron.
Aug. 26.—Woodbury Camp and Old Sarum. J. Cameron and S. Whitaker.

Astronomical Section.

Lectures and Meetings.

1937.
*Nov. 13.—Comets. W. Goodacre.
*Dec. 8.—Some Stellar Wonders. J. T. Burge.

1938.
*Jan. 12.—The Planet Jupiter. Inst.-Capt. M. A. Ainslie.
*Feb. 19.—Magnetic Storms. C. Conyers Morrell.
Mar. 26.—Is the Universe Homogeneous? (A Discussion.)
*Apr. 13.—Methods of Observation. Inst.-Capt. M. A. Ainslie
July 12.—To nominate a Chairman.

Botanical Section.

Lectures and Meetings.

1937.

*Nov. 23.—Fungoid Plant Parasites. Prof. Potter.

1938.

*Jan. 22.—Plants in the Service of Man. F. L. Lowther.
*Feb. 28.—Some Problems of Plant Life. L. B. Hall.
*Mar. 21.—Edible Fungi. Rev. W. L. O. Ward.

Excursions and their Leaders.

Apr. 12.—Cowgrove and Pamphill. R. K. Cardew.
Apr. 26.—Broadstone and Corfe Mullen. Messrs. Lowther and de Castro.
May 3.—Brockenhurst. F. L. Lowther.
May 10.—Coombe Keynes. R. K. Cardew.
May 19.—Hammoon and Manston. Messrs. Lowther and de Castro.
May 25.—Charborough Park. F. L. Lowther.
June 2.—Avon Tyrrell. R. K. Cardew.
June 8.—Turner's Puddle and Culpepper's Dish. F. L. Lowther.
June 17.—Marlborough Deep. J. Vorse.
June 21.—Studland and Ballard Down. L. B. Hall.
June 28.—Corfe. L. B. Hall.
July 6.—King's Park Nursery. Messrs. Lowther and de Castro.
July 14.—Morden Park. F. L. Lowther.
July 22.—Holmsley. H. J. Wadlow.
July 28.—Bryanstone Park. Messrs. Lowther and de Castro.
Aug. 4.—Bloxworth to Bere Regis. F. L. Lowther.
Aug. 11.—Burley. H. J. Wadlow.
Aug. 18.—Zelstone. Messrs. Lowther and de Castro.
Aug. 23.—Spetisbury. R. K. Cardew.
Sept. 9.—Slepe Heath. H. J. Wadlow.
Sept. 12.—Beaulieu Road. H. J. Wadlow.
Sept. 20.—Roman Road, Upton. H. de Castro.
Sept. 27.—Ower. T. E. Belcher.
Oct. 4.—Corfe. H. J. Wadlow.
Oct. 13.—Brockenhurst (Fungus Foray). Messrs. Potter and Vorse.
Oct. 20.—Dudsbury and Hampreston. R. K. Cardew.
Oct. 27.—Brockenhurst (Fungus Foray). Messrs. Potter and Vorse.

Entomological Section.

Lectures and Meetings.

1937.

Dec. 1.—An Introduction to Entomology. B. Gorton.

1938.

Jan. 1.—The Biology of Insects. F. L. Lowther.
Jan. 24.—The Biology of Insects (continued). F. L. Lowther.
Feb. 2.—Sensation in Insects. B. Gorton.
Mar. 2.—Man's Place in Nature. (A Discussion.)
May 9.—Insects and Disease. B. Gorton.
July 18.—Biology of Insects (continued). B. Gorton.

Geographical Section.

Lectures and Meetings.

1937.
*Nov. 17.—Constantinople. C. K. Muspratt.
Dec. 18.—Dorset Villages. F. L. Lowther.

1938.
*Jan. 29.—Spanish Ways and Customs (Part II.) R. Watkin
*Feb. 5.—Regional Survey of Parkstone. F. L. Lowther.
*Oct. 22.—A Nature Lover in N. America. Mrs. Boardman.

Excursions and their Leaders.

May 12.—Exbury Gardens. H. de Castro.
June 15.—Abbotsbury Sub-Tropical Gardens. H. de Castro.
July 7.—Cadbury Castle. H. de Castro.
Sept. 14.—Hambledon Hill and Tarrant Valley. H. de Castro.

Geological Section.

Lectures and Meetings.

1938.
*Jan. 10.—The Pleistocene Period in E. Anglia. A. Gibbons.
*Feb. 15.—Flood Plains and Terraces of Bournemouth. J. F. N. Green.
*Mar. 8.—The Geology of Purbeck. W. C. Simmons.
*Apr. 5.—British Deserts of the Past. Rev. W. Looker.
*Oct. 24.—Changes in Sea Level, and Coast Erosion. C. E. Scudamore.

Excursions and their Leaders.

May 27.—Branksome Chine. H. Bury.
June 10.—Durlston Bay. W. C. Simmons
July 26.—Blashenwell and Creech Barrow. H. Bury.
Sept. 6.—Punfield Cove. W. C. Simmons.

Microscopical Section.

Lectures and Meetings.

1937.
Nov. 19.—Objects of Interest.
Dec. 17.—Objects of Interest.

1938.
Jan. 21.—Objects of Interest.
Feb. 18.—Rock Sections. W. C. Simmons.
Mar. 18.—Objects of Interest.
Apr. 22.—Objects of Interest.
May 20.—Objects of Interest.
July 15.—Objects of Interest.
Aug. 19.—Pollen and Pollination.
Sept. 16.—Seeds
Oct. 21.—Objects of Interest.

Photographic Section.

Lectures and Meetings.

1937.
*Nov. 29.—Lincoln—City and Cathedral. S. Whitaker.

1938.
*Feb. 26.—Glimpses of a World Tour. Mrs. Cameron.
*Apr. 2.—From Loch Etive to Naples. E. Dodshon.
*Apr. 30.—Members' Lantern Slides.
*Oct. 26.—Rambles in Pembrokeshire and Shropshire. S. Whitaker.

Physical Section.

Lectures and Meetings.

1937.
*Nov. 20.—Sound. W. J. Woodhouse.

1938.
Jan. 15.—Illusions of Sight and Hearing. W. G. A. Robertson.
*Mar. 15.—Electricity. C. A. Baker.
*Mar. 23.—Life and Work of Lord Rutherford. Miss M. Penrose.
Oct. 12.—War Gases and A.R.P. B. Gorton.

Excursion and Leader.

May 5.—Miller's Food Production Factory. W. H. Marsh.

Zoological and Biological Section.

Lectures and Meetings.

1937.
Nov. 9.—Mutations and the Origin of Species. (A Discussion.)
*Dec. 11.—Corsica Revisited. Rev. F. C. R. Jourdain.
Dec. 16.—Mimicry. (A Discussion.)

1938.
Jan. 17.—Acquired Characters and Heredity. (A Discussion.)
*Jan. 19.—The Outer Hebrides. Rev. C. J. Pring.
Feb. 9.—Protective Coloration. (A Discussion.)
*Feb. 23.—Coloration of Insects. Rev. T. B. Eddrup.
*Mar. 16.—A Whaling Voyage to the Greenland Sea in 1888. R. W. Gray.
*Mar. 30.—Attributes of Whales. R. W. Gray.
Apr. 23.—A Talk about Storks. Rev. F. C. R. Jourdain.
Oct. 8.—Animals of the Countryside (Part I). B. Gorton.
*Oct. 18.—International Ornithological Congress (1938). Messrs. Pring and Jourdain.

It was with very profound regret that, in April, the Council received the resignation from the office of Honorary Treasurer of Mr. G. Brumell, who was obliged to relinquish his duties owing to ill-health. Mr. Brumell had been its highly-efficient and very

popular Honorary Treasurer since 1908. The Council has been fortunate in obtaining as Mr. Brumell's successor Mr. H. G. Trayfoot, M.B.E.*

The Chairmanship of the Astronomical Section, which became vacant on the death of Mr. Goodacre, has been filled by the election of Instr.-Capt. M. A. Ainslie, R.N., B.A., F.R.A.S. Captain Ainslie is well-known to all astronomers, particularly in connection with his extensive work on the planet Jupiter.

The fourth Annual Congress of the Society for British Entomology was held at No. 39 Christchurch Road from June 3rd to the 7th, the Council having offered the use of the premises to the Congress. Among those who read papers to the Congress was Professor G. D. Hale Carpenter, F.L.S., F.Z.S., F.R.E.S., who has accepted the Council's invitation to become President of the Society for the coming year. Professor Carpenter's reputation as an entomologist is, of course, international.

The Council wishes to take this opportunity of thanking all donors of gifts to the Society during the past year, and also of expressing its appreciation of the excellent work done by the ladies of the Tea Committee, by the lanternists, and by those who distributed the volumes of the Society's Proceedings.

* Since this Report was drawn up Mr. Trayfoot has died and is succeeded as Hon. Treasurer by Mr. A. J. Parsons.

FORM OF LEGACY.

The following FORM OF BEQUEST is recommended for adoption by those who may be desirous of leaving by Will money for promoting the objects and work of the Society :—

I give absolutely to the Treasurer for the time being of the Bournemouth Natural Science Society of No. 39 Christchurch Road, Bournemouth, for the general purposes of the Society the sum of £ s. d. free of duty, and I declare that the receipt of the said Treasurer for the time being shall be sufficient discharge for the said legacy.

Summary of the Accounts for the Year ending 30th September, 1938.

RECEIPTS.

	£	s.	d.
Current A/c.			
Members' Subscriptions	406	17	6
Donations to General Fund	1	8	0
Special Donation for Payment of Secretary ...	35	0	0
Rent from Tenants	135	0	0
Letting of Hall, etc.	50	5	0
Surplus from Excursions	11	11	9
Pennies for use of Telephone	1	11	0
Sale by Mrs. L. Cookes of Photographs taken by her at Excursions	1	1	0
Sundry	0	18	2
	643	12	5
Balance from 1937	176	4	3
	£819	16	8

PAYMENTS.

	£	s.	d.	£	s.	d.
Interest on Debentures	151	13	0			
Less Tax	39	16	2			
				111	16	10
Income Tax under Schedule D ...				0	5	0
Corporation Duty				3	4	1
Maintenance of the Society's House:—						
Rates	80	5	10			
Property Tax	51	5	0			
Water, Light and Heat ...	86	11	5			
Wages	76	9	6			
Insurances	19	9	3			
Telephone Charge	8	10	2			
Furnishing and Upkeep ...	43	12	8½			
				366	3	10½
Secretarial Expenses:—						
Printing and Stationery ...	29	9	8			
Postage	26	9	2½			
Assistant Secretary	43	3	9			
				99	2	7½
Maintenance of Garden:—						
Wages	21	19	5½			
Other Expenses	0	17	9			
				22	17	2½
Subscriptions to other Societies ...				0	17	6
Cost of Vol. XXIX. of Proceedings of the Society				38	16	0
Expenses of Library				0	10	2
Legal Expenses				25	17	4
Sundries				0	12	7½
				670	3	3
Balance carried forward ...				149	13	5
				£819	16	8

Deposit A/c. Debenture Fund.

	£ s. d.		£ s. d.
Balance brought forward	38 19 10	Balance on Deposit	39 11 1
Interest to 31st December, 1937	0 11 3		
	£39 11 1		£39 11 1

Building Fund.

	£ s. d.		£ s. d.
Balance brought forward	50 9 0	Balance on Deposit	51 3 11
Interest to 31st December, 1937	0 14 11		
	£51 3 11		£51 3 11

Archæological Research Fund.

	£ s. d.		£ s. d.
Balance brought forward	8 12 9	Balance on Deposit	8 15 1
Interest to 31st December, 1937	0 2 4		
	£8 15 1		£8 15 1

Redemption Fund.

	£ s. d.		£ s. d.
Balance brought forward	17 0 11	Balance on Deposit	29 11 9
Received for Conveyance of strip of land to Sir G. Meyrick's Trustees	10 0 0		
Various transfer fees and fees for duplicate certificates	2 6 0		
Interest to 31st December, 1937	0 4 10		
	£29 11 9		£29 11 9

H. G. TRAYFOOT,
Hon. Treasurer.
30th September, 1938.

We have examined the above accounts with the books of the Society and the Vouchers for payments and certify the same to be correct.

(*Signed*) FREDERICK BROAD.
JOHN C. WOODS.

4th November, 1938.

Financial Note.

The balance carried forward again includes a sum of £35 given by a generous friend towards the payment of an Assistant Secretary during the coming year.

It will be observed that the balance carried forward is £26 10s. 10d. less than that for last year, notwithstanding the fact that the revenue obtained from tenants and lettings of the Hall is £49 14s. 0d. higher than last year.

It should, however, be pointed out that the Payments for 1937-38 include a sum of £25 17s. 4d. for Legal Expenses of an exceptional character, and also a sum of £16 13s. 0d. for the purchase of fuel during the summer in order to obtain the benefit of low prices. This will effect a saving of about £2. The fuel consumed last winter was purchased during the winter months.

Report of the Botanical Section.

The Botanical Section has held 31 meetings. Four of these were Lectures and Discussions, and 27 were field meetings, including two fungus forays.

Records and notes on the distribution and changes in the local flora were continued.

Library Report.

Certain Periodicals have been supplied by members as before, and a large number of volumes have been added by the generosity of a dozen members, notably our faithful benefactor, Dr. Crallan, and Mr. J. F. N. Green, who has lent 18 modern Works on Geological subjects. Details of such additions may be seen on the lists which are posted from time to time in the Library.

Report of the Zoological Section.

Observations on Birds in the Bournemouth District from October, 1937, to October, 1938.

By the Rev. F. C. R. Jourdain, M.A., M.B.O.U., F.Z.S., etc.

1937.

The year ended up with some remarkable weather. In October the rainfall was 5.88in., but November was a dry month and only 1.49in. fell, though December was again wet, with 4.08in., so that the rainfall for the whole year was no less than 8.88in. above the average. The snow which began on the afternoon of December 7th continued to fall heavily, and the weight of the wet snow brought down telegraph poles in all directions and caused great damage to trees in the New Forest, where at one time great numbers of cars were stranded. In Bournemouth itself the snowfall was light, but in the county inland it was heavy and remained on the ground till December 12th. On the 19th heavy rain set in, and the thrushes began to sing again.

[Nutcracker, *Nucifraga caryocatactes*. A bird seen at Burley on two occasions independently seems to answer pretty closely to the description of this species. For details see *Proc. Hants Field Club* IV. Pt. I.]

Crossbill, *Loxia c. curvirostra*. Heard calling at Southbourne at 8.5 a.m. on October 10th. It is strange that this species does not re-establish itself in the district (J).

Siskin, *Carduelis spinus*. A flock of about 10 near Beaulieu village on Nov. 28th (KS).

Snow-Bunting, *Plectrophenax nivalis*. This rather unusual winter visitor appeared in exceptional numbers this winter. The first arrival was reported near the houseboats in Poole Harbour on Nov. 13th (KS); on the 16th another was reported near the shore of the Harbour (CP), while one was seen on the top of Hengistbury Head on the 19th (M and FP).

Dartford Warbler, *Sylvia u. dartfordiensis*. One seen among the gorse bushes at Keyhaven Nov. 15th (KS).

Ring Ouzel, *Turdus t. torquatus*. An immature bird at "West Man," Dorset on Nov. 21st (KS).

Black Redstart, *Phœnicurus o. gibraltariensis*. A hen at New Milton, Oct. 29th (R. H. Sears). Four at Seacombe, apparently all males, Nov. 14th (CP); one at " West Man " on Nov. 21st (KS).

[Alpine Accentor, *Prunella collaris*. At West Man, a little beyond Winspit on Nov. 9th, a bird with movements recalling Hedge-Sparrow was seen on the cliffs by CP and a friend. They specially noted that it was a bird new to them, with bluish grey on throat, rufous on flanks and with dark markings on mantle. From the description it could hardly have been anything else but this species.]

Short-eared Owl, *Asio f. flammeus*. Two noted near Winspit on Nov. 21st (KS).

[Eagle (? *Aquila chrysaetos*). One seen on Exbury Estate in September by J. Stevens, but species uncertain (TT).]

Hen-Harrier, *Circus c. cyaneus*. A male seen at Arne hawking over the marsh on Nov. 13 (CP) and on the 27th another, either female or immature, but with a definite white rump, was quartering the ground near Wareham (KS).

Rough-legged Buzzard, *Buteo l. lagopus*. One definitely identified at Harbridge on Dec. 7 (BR).

Whooper, *Cygnus cygnus*. Only two birds returned to Beaulieu this autumn as against six in the previous year. They arrived on Oct 29 and allowed the observer to get within 30 yards of them (TT), but disappeared after about ten days, returning again about the end of the year.

White-fronted Goose, *Anser albifrons*. Five seen on the wing between Winkton and Burton, close enough to see the white at the base of the bill clearly, on Dec. 18 (CP).

Wigeon, *Anas penelope*. The cold spell brought ducks in great number into our harbours in November and December. On Nov. 15-16th Poole Harbour was crowded, and 200-250 were noted at Littlesea and the adjoining part of the harbour, chiefly Wigeon, but Mallard, Tufted, Pochard, Shoveler, Teal, Gadwall (about 13 or 14) and Sheld-duck were all present (CP).

Velvet Scoter, *Oidemia fusca*. Five arrived at Avon Beach on Nov. 18th and ten on the following day, but only two were there on Dec. 1st. Most of these were males, possibly slightly oiled (CP).

Divers, *Colymbus stellatus* (?). An amazing number appeared at sea off Avon Beach on Dec. 30. At first some 40 were counted, but as they kept diving it was not possible to make an accurate count, but well over 100 must have been present (CP).

Waders (*Limicolæ*). Among these specially noted were Grey Plover, *Squatarola squatarola*. Eight at Keyhaven Oct. 17 (SB); two in Christchurch Harbour Nov. 19 (CP); also noted in Poole Harbour on 27th (KS). Sanderling, *Crocethia alba*. Ten in Christchurch Harbour, Nov. 19 (CP). Knot, *Calidris canutus*. One, same place, Dec. 5 (CP). Dunlin,

Tringa alpina. About 150 in one flock with Ring Plovers, same place and date (CP). Dusky Redshank, *T. erythropus.* One noted on marsh, Beaulieu, Nov. 28 (KS). Black-tailed Godwit, *Limosa limosa.* One Poole Harbour, Nov. 27 (KS).

Guillemot, *Uria a. albionis.* Quite a number were seen along the nesting ledges of the cliffs at W. Man on Nov. 21 (KS).

1938.

With much regret we chronicle the loss of one of our best observers, Mr. K. D. Smith, who has left Bournemouth for a more adventurous life in Rhodesia. The numerous records due to his energy during the last few years bear witness to his keenness and the care with which his identifications were always made. Perhaps the most striking events of the year have been the second occurrence in the British Isles of the Pallid Harrier (*Circus macrourus*) in East Dorset; the appearance of Spoonbills (*Platalea leucorodia*) on two occasions in Christchurch Harbour and considerable evidence, even if not quite conclusive, of the occurrence of the Alpine Accentor (*Prunella collaris*) on the Dorset coast. The breeding of the Oyster-Catcher (*Hæmatopus o. occidentalis*) on the Hants coast is also a matter of much interest.

Raven, *Corvus c. corax.* This species is steadily gaining ground along the South coast, where there is little or no game preservation, but makes little headway inland. There are now nine breeding pairs on a part of the Dorset coast where only two or three pairs bred ten years ago (J). Two in Stanpit Marsh, Oct. 8 (CP).

Crossbill, *Loxia c. curvirostra.* Occurs from time to time in very small numbers, but no evidence of fresh immigration or breeding. Three reported from Knyveton Road at end of February (ET).

Brambling, *Fringilla montifringilla.* Reported from Parkstone January to mid-March (RW).

Cirl Bunting, *Emberiza cirlus.* Now quite common resident round Mudeford (CP, SB).

Grey Wagtail, *Motacilla c. cinerea.* Every likely spot on our streams is now occupied by a pair (BR, CB, J).

Great Grey Shrike, *Lanius e. excubitor.* A "Grey Shrike," probably this species, was seen at Ringwood on June 25 (AP), and again at Picket Post on July 4 (P. Nagle) and finally at Ringwood again on July 16 (AP). The date is remarkably early for this species.

Red-backed Shrike, *L. collurio.* Still breeds on the outskirts of Bournemouth. A field-vole impaled on a thorn near a nest on June 26 (ET).

Waxwing, *Bombycilla g. garrulus*. Two seen at Picket Post on Jan. 16 (A. C. Adler).

Goldcrest, *Regulus r. anglorum*. An albino, still being fed, May 27th on Winkton Common (CP).

Pied Flycatcher, *Muscicapa h. hypoleuca*. One on Aug. 20th and two more on 27th in Bournemouth (ET).

Dartford Warbler, *Sylvia u. dartfordiensis*. Owing to the spring drought much of the breeding ground in the Ringwood district was burnt out (CB). Outlying pairs reported on isolated localities quite near the sea, e.g., Hengistbury Head (CPJ). Reported singing on January 24th and 25th (ET).

Whinchat, *Saxicola rubebra*. A male seen on March 9th at Keyhaven and clearly identified; two others probably of same species (B and MR).

Song-Thrush, *Turdus e. ericetorum* and Blackbird, *T. m. merula*. One effect of the dry weather was a great reduction in the numbers of young reared by these species. Frequently only a single young bird was seen, accompanied by its parent.

Green Woodpecker, *Picus v. pluvius*. Often seen in Jan.-Feb. on Stanpit Marsh among gorse bushes (SB).

Cuckoo, *Cuculus c. canorus*. A Robin's nest from which young had flown, with one addled egg, at Ringwood contained a Cuckoo's egg. There was another Robin's nest about 8ft. away, probably a second brood, with three fresh eggs, so that the Cuckoo evidently mistook the old nest for the new one (AP). Another Cuckoo laid in a Wood-Warbler's nest but, as is usually the case, the Wood-Warbler deserted (CB).

[Snowy Owl. One reported as seen by Col. C. Hodgkinson at Beaulieu early in March (TT).]

Hen-Harrier, *Circus c. cyaneus*. A pair seen in the Forest about March 22-23 (AP).

Montagu's Harrier, *C. pygargus*. An immature bird seen near the Wilts border, north of Ringwood, Aug. 21 (AP).

Pallid Harrier, *C. macrourus*. The only previous record of this species is that of one shot at Fair Island, May 8, 1931. On April 12th a beautiful male was killed in E. Dorset and seen in the flesh by CB, J and others. For details see *British Birds* (Mag.) XXXII p. 150. It had been making a meal on a chicken (AP).

Rough-legged Buzzard, *Buteo lagopus*. One seen at Harbridge on March 3 (BR).

Spoonbill, *Platalea leucorodia*. On March 17 one appeared in Christchurch Harbour and was seen by Miss R. Bett and subsequently by CP, FJ, KS and SB. The last named saw it rise and fly towards the Isle of Wight on the 20th. On Sept. 29th two more arrived and were identified by CP. They were

not quite mature and had some black on the primaries. These birds stayed till Oct. 14th and were not seen after that date, but during their stay of 16 days they were seen by the Rev. W. Serle, Dr. Serle, BR, FJ and J. B. Watson.

Bittern, *Botaurus stellaris*. One on River Avon, near Fordingbridge, Jan. 8th (N. W. H. Gladstone per CMP).

Whooper, *Cygnus cygnus*. The two birds which arrived at Beaulieu in October, 1937, were present at the beginning of 1938 and stayed till April 17, when they left for the north (TT). During their long stay they were seen by many visitors and were very tame.

White-fronted Goose, *Anser albifrons*. One shot on the Avon (of two) about Jan. 22nd. Cf. note on this species under 1937 (Dec. 18) (CMP).

Sheld-duck, *Tadorna tadorna*. Fifty at S. Haven peninsula, March 3 (TB). Nineteen pairs present in Christchurch Harbour in April (SB), but few bred this year; one lot of seven young on July 12 (CP).

Mallard, *Anas. p. platyrhyncha*. Fifty males, Littlesea, May 24th (TB).

Teal, *A. c. crecca*. A few in the Harbour during spring; eleven pairs on Feb. 21 (SB); 12-14 at Beaulieu, Feb. 24 (CP); 14 at Littlesea, March 22 (TB).

Garganey, *A. querquedula*. Two, Christchurch, 21-26 April (SB).

Shoveler, *Spatula clypeata*. Five on March 13 and two April 13, Christchurch (CP).

Gadwall, *A. strepera*. Two on May 28 and nine (probable) on Oct. 16, Christchurch (CP).

Pintail, *A. acuta*. Two reported flying over Christchurch Harbour (SB).

Pochard, *Nyroca ferina*. Thirteen on salt water lake, Poole, Jan. 29 (TB). Six off shore Mudeford, Feb. 26 (CP).

Tufted Duck, *N. fuligula*. 74 on salt water lake, Poole, Jan. 17 (TB).

Scaup, *N. m. marila*. Two females at Mudeford, one on lagoon, Oct. 27 (CP).

Eider, *Somateria mollissima*. Two reported at sea off Old Harry, Jan. 2 (KS).

Scoter, *Oidemia nigra*. A large flock (including some of next species) off Avon Beach, Jan. 12th (CP).

Velvet Scoter, *Oi. fusca*. Besides those mentioned above, one on lagoon, Avon Beach, Jan. 12 (CP).

Cormorant, *Phalacrocorax c. carbo*. Two, out of 16 over Mudeford Lagoon, had white thigh patches on Jan. 18th (CP).

Gannet, *Sula bassana*. Adults fishing in Weymouth Bay, June 16; an oiled adult on Avon Beach, Jan. 23 (CP); an adult on shore, Milford, in mid-October (Mrs. Raine).

Great Crested Grebe, *Podiceps cristatus*. Three pairs reported on Sowley Pond (TT).

[Black-necked or Slavonian Grebe. Two seen, Beaulieu, Feb. 24 (CP).]

Black-throated Diver, *Colymbus arcticus*. Two at sea, off Mudeford, April 14 (CP); one April 24 (SB).

Wood-Pigeon, *Columba palumbus*. Two fledged young reported on lawn, Boscombe (G. H. Clarke).

Oyster-Catcher, *Hæmatopus o. occidentalis*. A nest with three eggs was found this year on the Hampshire coast (TT). This species breeds regularly in Poole Harbour, and has also nested in the Isle of Wight and in Sussex, but we have no note of previous breeding on the mainland. Noted at Mudeford in March, August and September (CP).

Grey Plover, *Squatarola squatarola*. Stanpit, April 3 (CP). Three, April 21; six (one in summer plumage) on 23rd, but only one on 24th (SB).

Turnstone, *Arenaria interpres*. Occasional, Stanpit; one April 29 (SB), last date May 8 (CB).

Sanderling, *Crocethia alba*. Mudeford beach, four March 27 (CP, J), three April 23, about 20 on 24th and one on May 1 (SB).

Knot, *Calidris canutus*. Stanpit, about 12, Sept. 2; one Oct. 2 (CP).

Little Stint, *C. minuta*. Stanpit, three on Sept. 3 (CP).

Purple Sandpiper, *C. maritima*. Stanpit, Sept. 7 (CP).

Wood-Sandpiper, *Tringa glareola*. Stanpit, Aug. 5 (CP).

Redshank, *T. t. britannica*. The 1937-38 winter was the fourth in succession during which the Redshanks have remained in the Avon valley throughout (CMP).

Dusky Redshank, *T. erythropus*. At Beaulieu three on March 26 (KS), one April 23 (MCD), and one July 6 (JW). Also one at Stanpit April 27 (SB).

Greenshank, *T. nebularia*. Noted at Pennington, March 7 (CP); 26th, Beaulieu (KS); Stanpit April 30 (SB) and Sept. 13 (CP); Beaulieu Sept. 25 (CP).

Bar-tailed Godwit, *Limosa lapponica*. Noted at Pennington, March 15 (CP); Stanpit April 24 (1); 28th (1); 29th (4); 30th (10); May 2 (2) (SB); May 8 (CP); Aug. 30, Sept. 12-13 (CP); Beaulieu, Sept. 25 (CP).

Black-tailed Godwit, *L. limosa*. Stanpit, April 30 (2 SB); Pennington, Sept., 5 (3 CP).

Jack Snipe, *Limnocryptes minimus*. One Beaulieu, Feb. 24 (CP).

Woodcock, *Scolopax rusticola*. One found sitting on four eggs on March 22, Beaulieu, a somewhat early date (TT).

Sandwich Tern, *Sterna s. sandvicensis*. Three on mud, Stanpit, April 30 (SB).

Black-headed Gull, *Larus ridibundus*. The British colonies are being surveyed this year. There are now four in the county, Parley Common, Keyhaven, Beaulieu and Newton Marsh, I. of W. (J). Birds with black heads noted on Jan. 4 (one) and two more on 24th (CP).

British Lesser Black-backed Gull, *L. f. graellsii*. This species is supposed to return in early March. Several almost certainly seen Stanpit, Feb. 27 (CP, J) and one clearly identified Mar. 1 (CP).

Iceland Gull, *L. leucopterus*. A nearly adult bird reported from Swanage, Mar. 31 (G. B. Gooch).

ARRIVAL OF MIGRANTS.

Tree-Pipit. Mar. 23rd, Mudeford (CP); 24th, Harbridge (MR).

Yellow Wagtail. Mar. 17th, Burley (F); April 8th, Mudeford (CP); Harbridge (MR); 14th, Christchurch (SB); 17th, Burley (F).

White Wagtail. April 3rd, Barton-on-Sea and Bournemouth (F).

Red-backed Shrike. May 10th, Brockenhurst (F); 18th, Harbridge (MR).

Spotted Flycatcher. May 5th, Burley and Sway (F); 16th, Harbridge (MR); 19th, Mudeford (CP).

Chiffchaff. March 14th, Lyndhurst (F); 19th Mudeford (CP); 20th, Southbourne (J); 22nd, Harbridge (MR); Goatham (TB); 23rd, Bournemouth (FP).

Willow-Warbler. March 27th, Whiteparish (F); 31st, Harbridge (MR); April 1st, Hengistbury (CT); 2nd, Ringwood (CB); 3rd, Bournemouth (FP).

Wood-Warbler. April 30th, Oakleigh (F); June 5th, Mudeford (CP).

Grasshopper-Warbler. April 27th, Christchurch (SB), 28th, Bournemouth (F); May 1st, Harbridge (MR).

Reed-Warbler. April 27th, Bournemouth (F); May 6th, Mudeford (CP); 25th, Christchurch (CT).

Sedge-Warbler. April 18th, Bournemouth (F); 23rd, Christchurch (SB); 29th, Mudeford (CP); May 5th, Harbridge (MR); 6th, Poole Park (TB).

Garden-Warbler. April 3rd, Barton (F); 26th, Ringwood (CB); 30th, Mudeford (CP); May 5th, Harbridge (MR); 12th, Hinton Admiral (CT).

Blackcap. March 23rd, Brockenhurst (F); April 19th, Christchurch (SB); 29th, Southbourne (J); 30th, ebid (CT).

Whitethroat. April 6th, Harbridge (MR); 12th, Bournemouth (F); 22nd, Mudeford (CP); 23rd, Christchurch (SB); 27th, Ringwood (CB).

Wheatear. March 6th, Cadnam (F); 14th, Hengistbury (B); 17th, Purewell (SB); 24th, Mudeford (CP); 25th, Harbridge (MR); 27th, Hengistbury (J); 29th, Bournemouth (FP).

Whinchat. March 9th, Keyhaven (MR); April 28th, Bournemouth (F); May 5th, E. Dorset (CP).

Redstart. April 27th, Christchurch (SB); 29th, Mudeford (CP).

Nightingale. May 10th, Bournemouth (F); 14th, Mudeford (CP).

Swallow. March 26th, Ringwood; 27th, Fordingbridge (F); April 2nd, Bournemouth (FP); 7th, Harbridge (MR); Ringwood (CB); 11th, Mudeford (CP); 19th, Avon Valley (CT).

House-Martin. March 27th, Cadnam (F); April 19th, Throop (CT); 22nd, Mudeford (CP); 24th, Christchurch (SB); May 3rd, Harbridge (MR).

Sand-Martin. March 6th, Romsey (F); April 7th, Hengistbury (CT); 9th, Mudeford (CP); Harbridge (MR); Ringwood (CB); 14th, Christchurch (SB).

Swift. April 25th, New Milton (F); 29th, Mudeford (CP); 30th, Harbridge (MR); May 6th, Ringwood (CB); Parkstone (TB); 7th, Christchurch (SB).

Nightjar. May 5th, E. Dorset (CP); 7th, Ringwood (F); 25th, Hengistbury (CT).

Cuckoo. March 27th, Burley (F); April 3rd, Mudeford (CP); 14th, Harbridge (MR); 17th, Hinton (CT); 21st, Ringwood (CB); 23rd, Christchurch (SB); 24th, Beaulieu (TT).

Turtle Dove. April 25th, New Milton; May 1st, Bournemouth (HB); 5th, E. Dorset (CP); 10th, Bransgore (CP); 12th, Harbridge (MR); 16th, Southbourne (CT).

Sandpiper. April 17th, Buckler's Hard; 23rd, Christchurch (SB); May 8th, Mudeford (CP).

Whimbrel. April 24th, Christchurch (SB); 25th, Mudeford (CP).

Lesser Tern. April 24th, Mudeford (CP); May 1st, Bournemouth (F).

Common Tern. May 6th, E. Dorset (CP).

Abbreviations:—B=Mr. Brewer; CB=C. J. Bellamy; HB=H. Bury; SB=S. D. Barfoot; TB=T. E. Belcher; F=Field (newspaper); J=F. C. R. Jourdain; CMP=C. W. Mackworth Praed; M and FP=Misses M. and F. Penrose; AP=A. J. Ponchaud; CP=Miss C. Popham; B and MR=B. J. and Mrs. Ringrose; KS=K. D. Smith; TT=Sir T. H. C. Troubridge; CT=C. E.

Tucker; ET=Miss E. Trotter; RW=R. Watkin. Notes and observations also received from M. C. Dilke, G. B. Gooch, P. A. D. Hollom, P. Nagle, Mrs. Raine, Rev. W. Serle, Dr. W. Serle, and J. B. Watson.

OPHIDIA.

Mr. Nagle reports a Smooth Snake, *Coronella lævis,* found dead on the road at Picket Post on September 3rd, which measured 23½ inches in length (AP). Mr. L. Beeching Hall informs me that the Smooth Snake rarely exceeds 24 inches, unlike the Grass Snake, which has been recorded over 4½ feet long in Hampshire and over 5 feet long on the Continent.

Presidential Address, 1938.

Mimicry in relation to other forms of Protective Coloration.

By Professor G. D. Hale Carpenter, M.B.E., D.M., F.L.S., F.R.E.S., etc.

The subject of Mimicry will here be discussed only as it affects insects, in which it has chiefly been studied. As now used the term does not include the "Protective Mimicry" of travellers, which will be described later; it is used for the deceptive resemblance of one animal to another. My object, however, is to show that these two classes of cases are essentially similar, and both explicable on the theory of Natural Selection acting upon variations presented to it. Many difficulties are cleared away if this very essential point is remembered; too often Mimicry between insects is looked upon as a highly peculiar and specialised phenomenon invented by "Arm-chair philosophers" to explain a few cases of resemblance between insects, etc.

The use of the convenient term Mimicry requires a caution, for in common parlance it means the conscious assumption of characteristics peculiar to one individual by another. No consciousness of this kind can be attributed to an insect; it is entirely passive material in the hands of Heredity, Variation, and Natural Selection.

The colours of insects are, broadly, either concealing or revealing. Conspicuous insects are, for obvious reasons, those most often found by travellers, but concealing coloration is far more usual. It can be either General or Special, the former implying resemblance to the general appearance of surroundings as a whole (dark or light mice), the latter a detailed resemblance to a particular part of the environment (leaf insect or stick caterpillar).

The term Special Procrypsis is used for these detailed resemblances which, as will be shown, are paralleled by true Mimicry. All protective resemblances are greatly accentuated by attitudes which often involve quite special and unusual habits, and it cannot be overemphasised that they are affairs of life and not of cabinet specimens.

Sometimes Special Procrypsis results in resemblance to highly specialized parts of the environment, as when a moth closely resembles a bird-dropping, an object of no interest to an insectivorous enemy. It is quite a small step from this to resemblance to another object known by previous experience to be distasteful or harmful.

The conspicuous insects so easily collected in the field have a number of characteristics in common; bright and easily distinguished colours in simple patterns, slow flight, free exposure and unafraid demeanour; they are often gregarious, thereby increasing their conspicuousness. Tested on animals they are found to be relatively distasteful as compared with procryptic insects, and often to give off an offensive odour, or to have stings or poisonous hairs. The coloration is said to be "Warning," or Aposematic; its simplicity enables it to be remembered by an inexperienced enemy, while toughness and pliability allow the insect to be examined and perhaps pulled about or licked without incurring serious damage. A young animal that has once handled a wasp and been stung by it remembers afterwards the black and yellow rings and will leave alone another insect similarly coloured if he can get enough food of other kinds.

Warning colours are often associated with special habits, as in certain grasshoppers which, when alarmed, stand quite still, display bright colours on wings or body, and may emit brightly coloured acrid bubbles of froth. Attitude is as important for Aposematic as for Procryptic colours, but with the opposite purpose.

It has been found that a simple type of warning coloration may be shown by large numbers of insects of many different families; this is known as Syn-aposematic coloration, and is based on the fact that experimental tasting by inexperienced enemies leads to loss of life by any one species which is avoided if the enemy has fewer aposematic patterns to learn. In other words, A and B, instead of each having its own pattern, will both benefit if they can, through selection of heritable variations, be made so like each other that any enemy that has found A to be distasteful will avoid B, and vice versa. This may be illustrated by different firms, all producing good stuff, agreeing to use a common trade-mark; it was first explained by Müller and is sometimes known as Müllerian Mimicry, though, as it does not involve deceit, the term mimicry does not apply.

Experimental evidence is available to show that aposematic insects *are* considered relatively distasteful, and that procryptic colours actually do conceal their wearers under natural conditions, but also that edibility depends upon degree, and that very few insects will be inedible to all enemies under all conditions.

When Bates, a few years after the publication of "The Origin of Species," put forward the theory that certain insects have, through the operation of Natural Selection, come to acquire a superficial resemblance to others belonging to what we have described as Aposematic species, this theory of Mimicry caused a great sensation. It depends firstly on the principle of Warning Colours, and requires that variations in colour and pattern which appeared in some insect of truly edible type resulted in its being

confused by an enemy with some other insect known by experience to be unpleasant, and in being unmolested so that it was free to reproduce its like.

Batesian Mimicry involves deceit, and is analogous to the fraudulent use of the trade-mark of a successful firm by a less successful competitor. Here, as in all other forms of protective resemblance, attitude and instincts play as important a part as coloration and shape, as when a spider holds up the front pair of legs and waves them in the air so that this extra pair of legs look like the active antennae of an ant.

True Mimicry is termed Pseud-aposematic coloration because, though a mimic may be conspicuous, it has nothing with which to back up its bluff. Therefore all that is necessary is that at a little distance appearances should be deceptive: profound anatomical alterations are not required by, nor are they characteristic of, Mimicry. Consequently it is often found that the same effect is produced by quite different means, one of the fundamental characteristics of the workings of natural selection.

Mimicry, depending upon deceit, cannot be too common, for it would then defeat itself, and true Batesian mimics will probably be found, when all is known, to be comparatively scarce species.

Resemblance of one insect to another is, after all, merely a case of resemblance to a particular part of the surroundings; in other words, Special Procryptic and Pseud-aposematic coloration are only different manifestations of the same phenomenon, both explicable by the operation of natural selection. Yet it is often sought to explain the latter by the operation of environment, by parallel mutation, by affinity, etc., arguments which entirely fail if applied to a stick-like caterpillar! The close analogy between the two is shown by the following two cases. The one, a spider which resembles an ant so closely that it will deceive naturalists in the field over and over again. The other, a small spider which frequents the rubbish at the mouth of an ant's nest, among which are the head-capsules of defunct ants cast out by the sanitary gang. When alarmed, this spider conceals the legs and front part of the body beneath the abdomen, which is shaped sculptured and coloured so as to resemble closely the dead ant's head. A spider resembling a living ant is Pseudaposematic, but if it resembles part of a dead ant it is an example of Special Procrypsis; in both cases the protective resemblance is to some particular part of the surroundings.

The phenomena of mimicry have been most intensively studied in butterflies, and it is necessary to consider the question—What are the enemies which act as agents of natural selection by taking one butterfly for food and ignoring another?

For various reasons it is held that birds must be these enemies, and it is said by critics that the evidence that birds devour butterflies to any appreciable extent is lacking. But evidence is accumulating, in particular the evidence left by the mark of the beak of the bird upon the soft scales on the butterfly's wing. The imprint is often so clear that the kind of bird can be diagnosed from the shape of the beak-mark. A unique collection of these "beak-marks" is being formed at the University Museum at Oxford, and the Hope Professor would be very glad to receive additions to it. When adequate numbers of specimens have been collected from the tropics it is expected that interesting statistical data may be available bearing on the frequency of destruction of "edible" and "distasteful" butterflies by birds.

Obituary Notice.

Walter Goodacre, F.R.A.S.

Mr. Goodacre was a business man, who devoted much of his leisure time to the study and exposition of Lunar Topography, a subject which had engaged his attention very early in life. At the age of 30 he was elected Fellow of the Royal Astronomical Society, and, later, he was one of the founders of the British Astronomical Association, serving in the office of President from 1922 to 1924, and acting as the Director of its Lunar Section for 40 years, having previously held a similar position in the Liverpool Astronomical Society. His "magnum opus," which secured for him a world-wide reputation, was a Map of the Moon, 77 inches in diameter. This standard work was published in 1910, and afterwards in 25 sections on a scale of 60 inches to the Moon's diameter. His book, "The Moon," appeared in 1932, and embodied the results of more than 50 years study of Lunar details.

On retiring from active business he settled in Bournemouth, and became a member of our Society in 1929. Two years later he was appointed Chairman of the Astronomical Section, in which capacity he enriched our Records by a series of Lectures given by himself and by a number of friends whose interest he enlisted in the work of the Society.

Historical Lists of Officers of the Society.

COMPILED BY THE LATE MR. R. A. DE PAIVA.

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Chairmen of Council

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1917-Feb. 19 ...	W. Munn Rankin, M.SC., B.SC.
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1922-27	J. H. Ralph Smythe, J.P.
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1916 Dec.-17 ...	W. Munn Rankin, M.SC., B.SC.
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1919-20	Hubert Painter, B.SC., F.C.S.
1920-22	J. H. Ralph Smythe, J.P.
1922-27	Rev. C. O. S. Hatton, B.A., F.L.S.
1927-28	J. H. Ralph Smythe, J.P.
1928-29	Claude Lyon
1929-31	F. G. Penrose, M.D., F.R.C.P., F.Z.S., M.B.O.U.
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1932-	Rev. F. C. R. Jourdain, M.A., F.Z.S., M.B.O.U.

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1938-	A. J. Parsons.

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1908-10	J. R. L. Dixon, M.R.C.S., L.R.C.P., and Col. E. E. Markwick, C.B., C.B.E., F.R.A.S.
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1910-11	H. Le Jeune.
1911 Nov.-Feb. 1912	Sir A. Brooke Pechell, bart., M.B.
1912 Apr.-Mar. 1914	T. Michell, M.I.C.E.
1914 Apr.-Oct. ...	R. A. de Paiva.
1914 Oct.-July 1917	R. A. de Paiva and T. Capper, M.A., B.SC.,
1917 July-25 ...	R. A. de Paiva.
1925-26	R. A. de Paiva and Rev. A. G. Yates, M.A., R.N.,
1926-31	Rev. A. G. Yates, M.A., R.N.
1931-32	M. Hellier, O.B.E.
1932-36	R. Quick, F.S.A. (Scot.)
1936-	W. J. Woodhouse, A.C.P.

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May Mar. 1912-1914 ...	R. A. de Paiva.
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1919-1920 ...	W. G. Boul, M.A., LL.D., D.C.L.
1920-1936 ...	W. J. Woodhouse, A.C.P., M.I.H.
1931	M. Hellier, O.B.E.

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Assistant Secretary

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1936-	Miss K. A. Hunkin, B.A.

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1909-1911 ...	F. I. Cooke.
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1929-1936 ...	S. Whitaker, Hon. Assistant Librarian.
1936-	S. Whitaker.

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1912-20	Hubert Painter, B.Sc., F.C.S.
1920-25	F. B. Taylor, B.A.
1925-	J. R. White, M.A.

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1921-Dec. 1922 ...	No Curator.
1923 Jan.-Nov. ...	Rev. C. O. S. Hatton, B.A., F.L.S., and Howard Lacey, B.A.
1923 Dec.-32 ...	Rev. C. O. S. Hatton, B.A., F.L.S.
1932-37	Bernard Gorton, M.R.C.V.S., M.P.S.
1937-	W. C. Simmons, B.Sc., A.R.C.S., F.G.S.

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1914 May-Nov. ...	Rev. Canon T. E. Usherwood, M.A.
1914 Dec.-24 ...	Rev. H. Shaen Solly, M.A.
1924-26	Col. J. R. Dodd, M.D., F.R.C.S.
1926-33	R. K. Cardew, B.A.
1933-34	A. S. Hemmy, M.Sc.
1934-38	J. Cameron, M.D., D.Sc.
1938-	F. L. Lowther, B.A.

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1922-24	B. M. Peek, M.A., F.R.A.S.

Astronomical and Mathematical

1924-25	B. M. Peek, M.A., F.R.A.S.

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1922-26	Howard Lacey, B.A.
1926-27	Rev. C. O. S. Hatton, B.A., F.L.S.
1927-	L. Beeching Hall, F.L.S.

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1915-Dec. 19 ...	F. G. Penrose, M.D., F.R.C.P., F.Z.S., M.B.O.U.
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1929-33	Alan Druitt, F.E.S.
1933-34	P. M. Bright, J.P.
1934-35	T. E. Belcher.
1935-36	G. E. J. Crallan, M.A., M.B., M.R.C.S.
1937-	B. Gorton, M.R.C.V.S., M.P.S.

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1916-36	Claude Lyon.
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1905-6	The Marquis de Trevelec.
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1917-18	H. Kidner, F.G.S.
1918-20	W. Munn Rankin, M.Sc., B.Sc.
1920-23	W. J. Woodhouse, A.C.P., M.I.H.
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1913-14	No Chairman.
1914-16	R. Y. Banks.

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1931- ... ... Rev. F. C. R. Jourdain, M.A., F.Z.S., M.B.O.U

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1913-14 ... ... H. B. Wells, F.R M S
1922-30 ... F. B. Taylor, B.A.
1930-31 ... ... F. W. Parrot.
1931-35 ... ... S. Whitaker.
1935- ... ... M. McDougall, M.B., B.S.

Zoological and Microscopical

1910-11 ... ... H. B. Wells, F.R.M.S.
A. W. Thomas, M.D., M.R.C.S.
1911 Mar.-12 ... G. E. J. Crallan, M.A., M.B., M.R.C.S.
1911-13 ... ... H. B. Wells, F.R.M.S.
1914-16 ... ... T. B. Goodall, F.R.C.V.S., F.L.S.
1916-22 ... ... F. G. Penrose, M.D., F.R. C.P., F.Z.S., M.B.O U.

Elected and co-opted Members of Council.

Title changed from Committee in 1910.

Many of these also had seats on the Council ex-officio either before or after their election or co-option. Their names are marked*

1905-7	Atkins, Dr. F.
1906—1908-36 ...	*Backhouse, H., F.R.H.S.
1914-15	*Banks, R. Y.
1905-6	Bax, P. B. Ironside.
1904	Bond, Dr. Eleanor.
1932-33	Borrett, Surg.-Capt. G. G.
1919-20	Boul, Mrs.
1930-	Broad, F.
1904-8	*Brownen, G., F.C.S.
1906-8	*Brumell, G., A.R.I.B.A.
1906-8	Buckland, Dr. Frank.
1930-	Burton, E. St. John, F.G.S., F.R.S.A.
1921-22—1933-34	*Cardew, R. K., B.A.
1909-11	Chandler, S. Whitty, B.A.
1905-6	Clements, Lt.-Col. W. G.
1904	Clift, Dr.
1921-28	Curme, Mrs.
1905-10	Curtis, W. Parkinson, F.E.S
1936-	De Castro, H.
1923-26—1927-30	*Dodd, Col. J. R., M.D., F.R.C.S.
1914-16	Druitt, J., J.P.
1916-17	Dyer, J. Herbert.
1919-25	*Ellis, H. J.
1910-30	French, J. M.
1929-	Fryer, Miss C. H.
1914-17	Furlong, R. O'B., C.B., M.A.
1919-Aug. 21 ...	*George, A. D.
1904	Giles, Dr.
1904-6	*Goodall, T. B., F.R.C.V.S., F.L.S.
1918-20	Gosse, W., M.D., D.P.H.
1921-23	Gray, Arthur.
1910-15	Hamilton, G. G., M.B., F.R.C.S.
1916-18 — 1922-23	*Hatton, Rev. C. O. S., B.A., F.L.S.
1911-16	Hill, S. McCalmont, D.C.L.
1937-	Hunkin, Miss K. A., B.A.
1926-30	Hurry, J. B., M.A., M.D.
1937-	James, Mrs.
1916-19	Jeffery, T. J. P.
1930-31	*Jourdain, Rev. F. C. R., M.A., M.B.O.U., F.Z.S.
1906-10 — 1911-18	*Le Jeune, H.
1926-33	Longbottom, F. W., F.R.A.S.
1933-38	*Lowther, F. L., B.A.
1914-16 ...	*Lyon, Claude.
1907-8	*Markwick, Col. E. E., C.B., C.B.E., F.R.A.S.
1932-3	*Marsh, W. H., B.Sc.
1907-8	Maude, W. C., J.P.
1935-6	McDougall, M., M.B., B.S.
1931-35	Morrell, C. Conyers, M.D., F.R.A.S.
1910-16	*Morris, Sir Daniel, K.C.M.G., J.P., M.A., D.Sc., LL.D., F.L.S.
1910-11	*Michell, T., M.I.C.E.
1916-19	*Neale, Joseph, B.A.
1905-6	*Ord, W. T., F.G.S.
1904	Parish, Miss
1932-3	Pattinson, Dr. T. W.
1915-16—31-32 ...	*Penrose, F. G., M.D., F.R.C.P., F.Z.S., M.B.O.U.
1933-	*Penrose, Miss M., B.Sc.
1917-18	*Rankin, W. Munn, M.Sc., B.Sc.

1904 ... ... Reid, C. J.
1931-32 ... ... Richey, H. A., B.A.
1936- ... ... Robertson, W. G. A., M.D., D.SC.
1919-32 ... ... Rooke, Miss S. G.
1918-19 ... .. Rothwell, Mrs.
1908-9 ... ... Scott, A., B.A.
1908-31 ... ... *Scott, J. H., M.E., M.I.M.C.E
1904-26 ... .. Sherring, R. Vowell, F.L.S.
1920-27 ... ... Simpson, Rev. E. J. Douglas, M A
1916-29 ... ... Smythe, J. H. Ralph, J.P.
1923-37 ... ... *Spencer, J. F.
1905-10 ... ... Stubbs, G. M.
1918-20 ... ... *Taylor, F. B., B.A.
1931- ... ... Wadlow, H. J.
1921-23 ... ... *Wallace, W. G.
1907-10 ... ... *Wells, H. B., F.R.M.S.
1931-37 ... ... Wetherell, Miss S.
1930-31 ... ... *Whitaker, S.
1906-7 — 1916-20 } *Woodhouse, W. J., A.C.P., M.I.H.
1923-36 ... ... }
1932- ... ... Wren, G. G.

Various Committees

Chairman: Rev. C. O. S. Hatton, B.A., F.L.S.

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Oct. 1919 General Policy of the Society.
1919 Nov.-
Feb. 1920 Housing.
1920 Feb.-
Oct. 1922 Housing and Finance
1922-32 ... ... Finance and General Purposes.

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Chairmen

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Oct. 1918 G. G. Grace, B.SC., A.R.C.SC., F.E.S.
1918 Nov.-
Oct. 1919 Hubert Painter, B.SC., F.C.S.
1919 Nov.-32 ... Rev. C. O. S. Hatton, B.A., F.L.S.
1932-37 ... ... G. E. J. Crallan, M.A., M.B., M.R.C.S.
1937- ... ... J. R. White, M.A.

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Chairmen

1917-1921 ... W. G. Wallace.
1921-32 ... ... Rev. C. O. S. Hatton, B.A., F.L.S.
1932-37 ... ... B. Gorton, M.R.C.V.S., M.P.S.
1937- ... ... W. C. Simmons, B.SC., F.G.S.

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1909-14 ... ... H. Sutton and E. Bicker.
1914-15 ... ... E. Bicker and H. Backhouse, F.R.H.S.
1915-17 ... ... E. Bicker and E. W. Barlow, F.R.A.S.
1917-28 ... ... E. Bicker and C. H. Blackett.
1928-31 ... ... E. Bicker and Son, and F. Broad.
1931- ... ... F. Broad and J. C. Woods.

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INDEX.

	Page
Accounts, Summary of	30
Aims of the Society	5
Annual Meeting	21
Aposematic Coloration	43
Archæological and Historical Section—	
Chairmen of 7	49
Excursions	24
Lectures and Meetings ...	24
Astronomical Section—	
Chairmen of 7	50
Lectures and Meetings ...	24
Auditors 8	53
Bankers	8
Batesian Mimicry	44
Beak-marks	45
Birds, Arrival of Migrant ...	39
Birds, Observations of	33
Books—	
Borrowing	5
Donations of	32
Botanical Section—	
Chairmen of 7	50
Excursions	25
Lectures and Meetings ...	25
Report of	32
Carpenter, Professor Hale, Presidential Address	42
Chairmen of Council 7	48
Chairmen of Sections 7	49
Club Day	24
Committees	53
Chairmen of	48
Council—	
Chairmen of 7	48
Members of 7 52	53
Report of	23
Curators 8	49
Death, Losses by 23	46
Editorial Committee	54
Editors 8	49
Entomological Congress ...	28
Entomological Section—	
Chairmen of 7	50
Lectures and Meetings ...	25
Excursions—	
General	24
Sectional	24
Finance Committee	54
Financial Note	32
Garden Committee	54
General Lectures and Meetings	23
Geographical Section—	
Chairmen of 7	50
Excursions	26
Lectures and Meetings ...	26
Geological Section—	
Chairmen of 7	50
Excursions	26
Lectures and Meetings ...	26
Goodacre, Walter	46
Historical List of Officers ...	47
Lectures and Meetings—	
General	23
Sectional	24
Legacy, Form of	29
Librarians 7	49
Library—	
Committee	54
Donations	32
Report	32
Map of the Moon	46
Mathematical Section—	
Chairmen of	50
Meetings—	23
Annual	21
Members, List of	9
Microscopical Section—	
Chairmen of 7	51
Lectures and Meetings ...	26
Mimicry	42
Museum Committee	54
Obituary—W. Goodacre ...	46
Officers and Council—	
Historical List of	47
Ophidia	41
Photographic and Record Section—	
Chairmen of 7	50
Lectures and Meetings ...	27

	Page
Physical Section—	
Chairmen of 7	51
Excursion	27
Lectures and Meetings ...	27
Presidential Address	42
Presidents 7	47
Procrypsis	42
Protective Coloration	42
Report of—	
Council	23
Botanical Section	32
Library	32
Summer Excursions	23
Treasurer	30
Zoological Section	33
Secretaries 7	48
Sectional—	
Excursions	24
Lectures and Meetings ...	24
Reports	32
Sections—	
Chairmen of 7	49
List of	5
Summary of Accounts	30
Syn-aposematic Coloration ...	43
Treasurers 7	48
Vice-Presidents 7	47
Zoological Section—	
Chairmen of 7	51
Lectures and Meetings ...	27
Report of	33

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